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FROM ENTREPRENEURIAL INTENTION TO ACTION: THE ROLE OF SELF-REGULATION AND CULTURAL VALUES THE CASE OF SAUDI ARABIA

Alammari, Khalid

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University of Plymouth

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**FROM ENTREPRENEURIAL INTENTION TO ACTION:
THE ROLE OF SELF-REGULATION AND CULTURAL VALUES
THE CASE OF SAUDI ARABIA**

by

KHALID MOHAMMED AL AMMARI

A thesis submitted to Plymouth University
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FROM ENTREPRENEURIAL INTENTION TO ACTION: THE ROLE OF SELF-REGULATION AND CULTURAL VALUES

THE CASE OF SAUDI ARABIA

Khalid Mohammed Al Ammari

Abstract

Scholarship has recognised the importance of entrepreneurship for economic development. Increasingly, policy makers promote entrepreneurship as one of the solutions for unemployment concerns. However, although many people formulate entrepreneurial intention they fail to convert their intention into action; this problem is called the intention-action gap. The problem of intention-action gap is particularly salient in Saudi Arabia. Although people have positive perceptions about entrepreneurship and high entrepreneurial intention, the country's entrepreneurial activity is low. This presents a barrier in achieving the country's national strategy to create more entrepreneurs through the promotion of entrepreneurship. Here, raising an intention to become an entrepreneur does not equate to becoming an entrepreneur.

Scholars often predict entrepreneurship by entrepreneurial intention. Thus, they assume that entrepreneurial intention is the best predictor of action. They use dominant intention models to predict entrepreneurial behaviour. However, there is compelling evidence that entrepreneurial intention alone is an insufficient predictor of subsequent entrepreneurial behaviour. Thus, it is inadequate to prepare people to deal with difficulties of initiating action and striving towards goal attainment. Hence, there is a need for a more proximal predictor of entrepreneurial behaviour that can promote goal striving.

Self-regulation (simplistically thought of as ‘will-power’) has been shown to be a better and more reliable predictor of intention in other fields. In fact, it was found that supporting intention with self-regulation can enhance the action prediction by up to 18%. In entrepreneurship, self-regulation has been suggested to differentiate people with entrepreneurial intention from active entrepreneurs.

Against this background, this thesis investigates the processes underlying the forming of entrepreneurial intention to identify predictors of self-regulation. Hence, it extends existing intention models with self-regulation that facilitate action initiation. Consequently, this study focuses on the link between entrepreneurial intention and self-regulation. In addition, due to the salient influence of culture in Saudi Arabia’s context, the study explores the effect of cultural values on entrepreneurial intention.

The conceptual framework is developed to explain the link between entrepreneurial intention and self-regulation and the effect of cultural values. This proposed two main levels, namely, goal setting and goal striving. The former reflects forming entrepreneurial intention and deliberative mind-set. The latter reflects forming implementation intention and implemental mind-set. This model is then tested through questionnaires among 405 non-entrepreneurs working in the private sector in Saudi Arabia. The data collected are analysed using the statistical tool, partial least squares structural equation modelling (PLS-SEM).

The study found that several factors and their interactions are important to explain the relationship between entrepreneurial intention and self-regulation. First, concrete goal intention can be formulated through desirability, feasibility, and entrepreneurial self-efficacy. However, this firm goal intention does not lead to self-regulation. Second, after formulating concrete goal intention, people can increase their self-regulation through implementation

intention and optimism. The effect of cultural values is important as they appear to reduce entrepreneurial self-efficacy and, hence, decrease self-regulation.

The outcomes have theoretical implications and lead to policy recommendations that can support better self-regulation and bridge the entrepreneurial intention-action gap, making a valued contribution to the development of entrepreneurship in Saudi Arabia.

Dedication

To the soul of my father, the first entrepreneur I knew in my life.

To the soul of my mother, the greatest personal loss this year.

To my wife, children, brothers and sisters.

A special dedication to my supervisors,

Robert Newbery, Yacine Haddoud, Emily Beaumont, Ahmed AlShumaimri

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Author's declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Graduate Committee.

Work submitted for this research degree at the Plymouth University has not formed part of any other degree either at Plymouth University or at another establishment.

Relevant scientific seminars and conferences were regularly attended at which work was often presented; external institutions were visited for consultation purposes and several papers prepared for publication.

Conference Papers:

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Signed

Date 09/01/2017

Chapter One: Introduction

Entrepreneurship is very important for economic growth (Ritchie and Brindley, 2005; Packham et al., 2010; Obschonka et al., 2011). Policy makers promote entrepreneurship to secure economic advantages for countries and societies (GEM, 2009; 2010). However, while many potential entrepreneurs have an intention to start up a business, they often fail to translate this intention into actual entrepreneurial behaviour (Kautonen et al., 2013; Fayolle & Linan, 2014; Kautonen et al., 2015). This phenomenon is called the entrepreneurial intention-action gap (Van Gelderen et al., 2015). It is particularly salient in Saudi Arabia where high levels of entrepreneurial intention do not lead to entrepreneurial activity (GEM, 2009; 2010). The entrepreneurial intention-action gap can discourage entrepreneurship in Saudi Arabia from two perspectives. First, it hinders entrepreneurial intenders in realising their aspirations (Hikkerova et al., 2016). Second, it impedes the country's plans and strategies to diversify income and reduce unemployment rate (Skoko, 2011).

A limited number of studies investigated the relationship between entrepreneurial goal intention and action (Fayolle & Linan, 2014). They assume that entrepreneurial goal intention is the best predictor of action (Krueger et al., 2000). However, recent studies assert that entrepreneurial goal intention is inadequate to predict entrepreneurial behaviour (Kautonen et al., 2013; Gielnik et al., 2014; Van Gelderen et al., 2015). Hence, they call for another action predictor – namely, self-regulation (Ilouga et al., 2014; Van Gelderen et al., 2015). Self-regulation refers to the process through which people “self-direct their own thought and behaviour towards reaching their goals” (Bryant, 2009, p.505)

By drawing on the notion of self-regulation as a more proximal predictor of action (Baumeister & Vohs, 2003; Bryant, 2009), this thesis identifies self-regulation determinants

in the entrepreneurship domain. Further, it explores the influence of cultural values on the process of formulating entrepreneurial intention. By doing so, the present research sheds light on the entrepreneurial intention-action gap concern in Saudi Arabia from two main perspectives, culture and cognition. From this, it recommends solutions to policy makers about intervention and promotion programmes as well as to potential entrepreneurs.

This introductory chapter has five main sections. The first section introduces the research background. The second section highlights the literature gap and contribution this research fulfils, while the third section presents the research aim and objectives. The next section discusses the significance of the research. Finally, the research context and outline are presented.

1.1 Research Background

According to some, entrepreneurship is a process of venture creation (Balan & Metcalfe, 2012). The importance of entrepreneurship is salient among countries and societies for several reasons. First, it enables nations to encounter global challenges such as economic recessions (Sowmya et al., 2010). Second, it supports societies to face difficulties such as unemployment (Koe et al., 2014). Third, it enhances development of countries through innovation (Setiawan, 2014). In order to secure the advantages of entrepreneurship, countries and societies require more entrepreneurs (Campbell, 2012). Hence, to achieve this policy makers establish policies and initiatives to promote entrepreneurship (GEM, 2009, 2010).

Many people formulate entrepreneurial intention but fail to convert their intention into action (Kautonen et al., 2015). This can discourage the fruitful outcome of entrepreneurial activity and potential entrepreneurs (Van Gelderen et al., 2015). The concern is relevant at both individual and country levels (Morales & Holtschlag, 2013).

The present research highlights two main reasons for the entrepreneurial intention-action gap; *way of thinking* (cognition) and *cultural values* (Bandura, 2001; Morales & Holtschlag, 2013). As far as cognition is concerned, people may interpret information about behaviour in a favourable or an unfavourable way (Wieber & Gollwitzer, 2015). This in turn can influence their action (Kaze'n et al., 2008). In the entrepreneurship domain, for example, individuals may perceive entrepreneurial activity as attractive and desirable and feel that they are capable of starting a business (Krueger et al., 2000).

As far as cultural values are concerned, embedded concepts and beliefs which developed in the early stages of life may inhibit behaviours (Inglehart, 2008; Uhlaner et al., 2002). In the entrepreneurship domain, for instance, cultural values can be unsupportive for entrepreneurship (Uhlaner & Thurik (2007); Morales & Holtschlag, 2013), and may subsequently inhibit the performing of entrepreneurial activity (Tomlinson, 2007; Skoko, 2011; Hamid, 2012).

Although converting entrepreneurial intention into action is important, previous studies mainly focused on predicting entrepreneurial intention rather than action (Kautonen et al., 2013), grounded on the notion that intention is the best predictor of action (Shapero & Sokol, 1982; Bagozzi et al. 1989; Ajzen, 1991; Bird, 1988; Krueger & Carsrud, 1993). Hence, knowledge about the entrepreneurial intention-action relationship is poor (Fayolle & Linan, 2014). Further, the limited number of studies that predict entrepreneurial action acknowledged that entrepreneurial intention is an insufficient predictor of entrepreneurial behaviour (Kautonen et al., 2013; 2015). Therefore, another predictor of action – self-regulation - is suggested which is more proximal to action (Hikkerova et al., 2016).

In order to address the important role of self-regulation as a better predictor of entrepreneurial activity, this thesis focuses on predicting self-regulation. Following the definition which

postulates that self-regulation entails directing behaviours and thoughts towards achieving goals (Bryant, 2009), this study highlights two determinants of self-regulation. The first determinant is goal setting, and the second determinant comprises actions and competencies that direct thoughts and behaviours towards achieving the chosen goal. These determinants enable the self-regulation process to perform its main functions; namely, monitoring and operating (Koole et al., 2011). Consequently, the aim of this study is to enable people to progress from only entrepreneurial intention to high self-regulation. It reflects the increasing interest in psychological dimensions of entrepreneurship (Bryant, 2009), cognitive characteristics of entrepreneurs (Mitchell et al., 2002), and entrepreneurial cognition (Baron, 2004).

In this sense, the present research focuses on self-regulation as the relevant measure rather than on the actual behaviour. The main reason is that entrepreneurship is a complex phenomenon that involves long time lags between intention and action (Krueger et al., 2000; Shook et al., 2003). Hence, it is appropriate to conduct a longitudinal study to investigate the entrepreneurial intention-action gap. For example, some of the recent longitudinal studies about the entrepreneurial intention-action link last for three years (Kautonen et al., 2013), two and half years (Gielnik et al., 2014), and two years (Kautonen et al., 2015). However, in the present study, it is not practical to use actual behaviour as the relevant measure due to time and cost constraints.

The interplay between cultural factor and cognition factor is conceptualised and applied to the context of Saudi Arabia. This approach is particularly useful in this context for several reasons. First, the entrepreneurial goal intention-action gap is salient in Saudi Arabia (GEM, 2009, 2010). Hence, this approach helps solve this problem. Second, it investigates the dominant justification of low entrepreneurial activity in Saudi Arabia; namely, cultural values (Tomlinson, 2007; GEM, 2009, 2010; NDP, 2010; Skoko, 2011; Hamid, 2012). Third, it

introduces the effect of another possible reason for low entrepreneurial activity in Saudi Arabia – namely, cognition. Finally, it explains the interaction between cultural values and cognition that may leads to inconsistency between entrepreneurial goal intention and action. The study concludes by providing recommendations to bridge the entrepreneurial goal intention-action gap in Saudi Arabia; along with study limitations and suggested further research.

1.2. Research Gap and Contribution

The present study contributes to knowledge from different perspectives – namely, themes of theory, methodology, and empirical/policy. These perspectives are explained in the following sections.

1.2.1. Themes of Theory Contribution

This study aims to fill the current knowledge gap in the field by exploring another predictor of entrepreneurial behaviour that can help to bridge the intention-action gap. By doing so, it responds to several concerns including the insufficiency of entrepreneurial goal intention (Kautonen et al., 2015), loss of potential entrepreneurs (Van Gelderen et al., 2015; Hikkerova et al., 2016), and inability to achieve aspirations (Bandura & Locke, 2003). The present research suggests self-regulation as a predictor for entrepreneurial behaviour for several reasons. First, it is in line with the *model of self-regulation* that explains how people self-regulate their behaviours and emotions to reduce the discrepancy between their intention and their actions (Carver & Scheier, 1990). Second, it is in line with the *hierarchy model of volition*, which postulates that people progress in successive order from entrepreneurial goal intention to self-regulation prior to taking action (Hikkerova et al., 2016). Third, it is consistent with the *theory of action control* where people apply self-regulation to control thoughts and actions in order to achieve their desires (Kuhl & Beckmann, 1985). Fourth, it is consistent with the *model of action phases* where people progress through two main stages

before taking action – namely, goal setting and goal striving (Gollwitzer, 1990; Heckhausen, 1991).

The study further contributes to the entrepreneurship domain by extending intention models with both cultural values and cognitive factors. This can provide a better understanding of the interplay between cultural values, intention, and cognition in entrepreneurship. It answers the call to consider the influence of cultural values in the entrepreneurship context (Morales & Holtschlag, 2013). Further, the study sheds light on the interpretation of assumptions that underpin the formulation of entrepreneurial intention. In fact, this is in response to the call for better understanding of the intention formation process (Hayton & Cholakova, 2012; Fayolle & Linan, 2014).

The present study further contributes to the entrepreneurship context by adopting the notion of entrepreneurial mind-sets, namely, deliberative and implemental mind-sets. It conceptualise entrepreneurial mind-sets to facilitate the navigation through action phases and bridging the intention-action gap. In fact, this answers the call to bridge the intention-action gap by moving from goal intention to implementation intention (Gollwitzer et al., 2011). Thus, it reflects the need to progress from the deliberative mind-set only to the implemental mind-set (Fujita et al., 2007; Gollwitzer et al., 2011).

The study further adopts different levels of intention including goal intention and implementation intention. The former refers to “end states” that a person aims to achieve (Achtziger et al., 2008), such as “I want to start a business”. Thus, it converts desires into concrete goals and indicates the time and effort that people are willing to devote to entrepreneurial activity (Gielnik et al., 2014). The latter refers to furnishing goal intention with plans of when, where, and how action should be initiated (Achtziger et al., 2008). Thus, it identifies activities that people are going to undertake to initiate their goal intention

(Sheeran et al., 2005), hence answering the call to introduce planning along with intention in predicting entrepreneurship behaviour (Fayolle & Linan; 2014).

The research further applies the concept of commitment which, to date, has been ignored by the entrepreneurship literature. This is in accordance with the call for including commitment in predicting entrepreneurial behaviour (Kautonen et al., 2013; Ilouga et al., 2014). Finally, the research adopts volitional aspects which some believe may be the reasons for an inability to translate entrepreneurial goal intention into action (Krueger et al., 2000; Brännback et al., 2007; Kautonen et al., 2013).

1.2.2. Empirical/Policy Contribution

This research has empirical contributions from two perspectives; those of the policy makers and those of the potential entrepreneurs. As far as policy contributions are concerned, policy makers have acknowledged the need to counteract global challenges such as economic downturns and unemployment. Hence, they introduce interventions and initiatives as entrepreneurial framework conditions (GEM, 2009, 2010). However, some countries still face the problem of discrepancy between entrepreneurial intention and action, which may discourage these efforts. Hence, this study found two main factors to be responsible for translating entrepreneurial intention into action – namely, cultural values and cognition. This can contribute to policy initiatives by directing efforts to focus on enhancing unsupportive cultures and entrepreneurial mind-sets. The study revealed that unsupportive cultural values can negatively influence self-confidence and hence reduce entrepreneurial intention. This finding contributes to policy making by encouraging the motivation side of entrepreneurship initiatives to focus on boosting entrepreneurial self-efficacy to a level that helps people to set challenging goals such as being entrepreneurs.

The research further contributes to policy making by adding another phase after the goal-setting phase of the entrepreneurship process – namely, goal striving. Thus, it informs entrepreneurship initiatives to consider one more stage after motivation towards action enactment – namely, volition. In fact, this study encourages policy makers in Saudi Arabia to enhance the prevailing unsupportive culture by increasing entrepreneurial self-efficacy that would help potential entrepreneurs to regulate negative emotions and trigger positive expectations. This can lead to facilitating determination rather than giving up (Carver & Scheier, 1990, 1998).

The study offers a road map from unsupportive cultural values to action initiation. The fact that cultural values in the Saudi Arabian context have been embedded for decades and are often established during the pre-adult period stimulates the need to start nurturing an entrepreneurial mind-set in the early stages of life. Hence, the present study contributes to informing young potential entrepreneurs empirically through the education system. Further, in response to the need for tech entrepreneurs to deal with global changes in technology, the study urges policy makers to approach potential entrepreneurs through corporates social responsibility (CSR) programmes. In fact, this is in line with the ninth strategy of general education as well as Science, Technology, and Innovation in the national ninth development plan of Saudi Arabia.

As far as the empirical contribution for the potential entrepreneurs is concerned, this research aims to bridge the entrepreneurial intention-action gap that currently exists in Saudi Arabia. Thus, it enables people who have entrepreneurial intention to convert their intention into reality. This can add value to the people and society from several perspectives. First, helping people to fulfil their aspirations and make them a reality can enhance their wellbeing (Carver

& Scheier, 1990) whereas failure to do so may negatively affect both psychological and physical health (Wrosch et al., 2005). Second, the study emphasises the need to promote an entrepreneurial mind-set in the early stages of life. This would enable societies to uncover talents and support young people to have a purpose in life. Third, young people should not suffer the consequences of unsupportive cultures. Thus, the research findings suggest intervening factors that help to enhance the relationship between cultural values and entrepreneurial intention. In fact, working on raising entrepreneurial self-efficacy in the early stages of life can raise the bar of people's goals, expectations, and achievements. Thus, this study sheds light on what it takes for some individuals to carry out their entrepreneurial intention whereas others may fail to do so.

1.2.3. Methodology Contribution

One of the common weaknesses of previous studies in the entrepreneurship field is the frequent use of student samples with limited sizes (Kautonen et al., 2013). Schlaegel and Koenig (2014) identified 98 studies, which employ the theories of the planned behaviour model (TPB) and the entrepreneurial event model (EEM) in the entrepreneurship field. The meta-analytic test found that almost 70% of these studies used student sample to study entrepreneurial intention. This study uses a sample of Saudi private-sector employees who never started a business; this overcomes the weaknesses of frequent use of student samples.

1.3. Research Aim and Objectives

The aim of this research is to bridge the gap between entrepreneurial intention and action in Saudi Arabia. This is important to secure entrepreneurship advantages and satisfy the country plans mentioned in the National Strategy Ninth Development Plan (NDP, 2010) (see Appendix A). For example, the domestic trade strategy aims to promote the culture of self-employment in the community. Further, the youth and development strategy aims to spread

the culture of productive work and reduce excessive reliance on the state for securing employment.

The study emphasised that entrepreneurial intention is an insufficient predictor of action. Hence, there is a need for a more proximal predictor of action – namely, self-regulation. The study aims to predict self-regulation through setting goals and engaging in actions that steer the individual towards initiating the goals (Baumeister & Vohs, 2003). Further, it is in line with defining self-regulation as the way people regulate their thoughts and actions towards achieving their goals (Bryant, 2009). To address this aim, the study identifies several objectives. These objectives include the following:

1) To identify the determinants of goal intention

At the pre-decision phase, people may have the intention to start a business. However, they may fail to act due to distractions and conflicts of many wants and wishes. Hence, they need to regulate their thoughts and actions to reach a decision (Gollwitzer, 1993, 1999; Mann et al., 2013). Thus, the self-regulation process should function to control their actions and thoughts (Carver & Scheier, 1990; Rasmussen et al., 2006). As the self-regulation process entails two main components – monitoring and operating –the ‘goal’ is required to monitor the discrepancy between the present conditions and desires (Koole et al., 2011). Further, in order to bridge the intention-action gap with self-regulation, Gollwitzer (1999) emphasised that goal intention needs to be underpinned by commitment and self-efficacy. Consequently, the first objective of this study is to identify determinants of goal intention that lead to self-regulation.

2) To identify the determinants of self-regulation

As people formulate concrete goal intention, they often encounter difficulties in initiating the intended action (Bryant, 2009; Gollwitzer, 1993, 1999). They may fail to start a business due to problems of enactments such as competing desires and social pressure (Kuhl & Beckmann, 1985; Mann et al., 2013). They need to regulate their thoughts and actions towards achieving their goal. As the self-regulation process entails two main components which are monitoring and operating, the operating component functions at this stage (Koole et al., 2011). Hence, individuals may be engaging in actions that facilitate initiating the goal (Baumeister & Vohs, 2003; Gollwitzer, 2006). The study explores these actions that lead to self-regulation later on.

3) To explore the mediators between goal intention and self-regulation

Entrepreneurial goal intention is insufficient to initiate action (Kautonen et al., 2015). Hence, people need to furnish their intentions with self-regulation (Kuhl & Beckmann, 1985; Carver & Scheier, 1990, 1998; Gollwitzer, 1993). Thus, they need to move from entrepreneurial goal intention level to entrepreneurial potential level (self-regulation) (Hikkerova et al., 2016). The study explores factors that may mediate the relationship between entrepreneurial goal intention and self-regulation.

4) To explore the influence of cultural values on goal intention

Cultures may be unsupportive for entrepreneurship and thus cause the intention-action gap (Uhlener & Thurik, 2007; Morales & Holtschlag, 2013). Hence, it is necessary to understand the relationship between cultural values and goal intention. The study investigates the direct and indirect relationships between cultural values and goal intention.

1.4. Significance of the Research

Countries and communities require entrepreneurs for several reasons. First, they can help countries to address global challenges and uncertainties (Colette et al., 2005; Cheung, 2008). Second, they are able to create jobs and improve services (Kuratko, 2005, Campbell, 2012). Third, they encourage life success through innovation, creativity (Harun, 2013), confidence (Palich & Bagby, 1995), and opportunities (Baron, 2008). Ultimately, however, entrepreneurship is about carrying out an action rather than only entrepreneurial goal intention (Kautonen et al., 2013). Action plays a crucial role in the process of creating new ventures (Carter et al., 1996; McMullen & Shepherd, 2006; Baron, 2007; Gielnik et al., 2014). The consequence of failure to translate entrepreneurial goal intention into action is loss of potential entrepreneurs and entrepreneurship advantages (Van Gelderen et al., 2015).

The present research explores the intention-action gap in Saudi Arabia. It investigates the processes that underlie the forming of entrepreneurial goal intention. This can highlight possible causes of the concern. Further, it identifies factors that help people with only entrepreneurial goal intention to maintain and achieve their purpose. It enables individuals who have entrepreneurial intention to progress with further steps toward action, by employing various means to maintain and initiate their intention. This can promote entrepreneurial activity and, hence, direct the country's strategies about self-employment.

This research focuses on people's actions and new venture creation in Saudi Arabia. It broadens the picture of entrepreneurship from just motivating entrepreneurial goal intention to understanding the entire process of the entrepreneurial mind-set. Identifying factors that enable intenders to be potential entrepreneurs is an important contribution to knowledge from several perspectives. As far as policy makers are concerned, the study responds to the need for more entrepreneurs. By exploring and understanding the factors underlying unsupportive

cultures, policy makers can enhance the efficiency of promotion and intervention programmes. At an individual level, this study enriches understanding of the entrepreneurship process from decision to action. By exploring the factors which facilitate translating entrepreneurial goal intention into action, individuals can make informed decisions about ways of improvement.

1.5. Research Context

The present research addresses the concerns over the entrepreneurial goal intention-action gap in Saudi Arabia. The case of Saudi Arabia reflects several issues in the domain of entrepreneurship studies. First, the Global Entrepreneurship Monitor (GEM) reported that although entrepreneurial goal intention in Saudi Arabia is higher than average, the corresponding entrepreneurial activity is far below average of comparable countries such as Algeria, Lebanon, Morocco, and Venezuela (GEM, 2009). As a result, Saudi Arabia is an ideal context to explore the gap.

Second, the research responds to the need for more studies about the effect of cultural values on entrepreneurship behaviour (Uhlener & Thurik, 2007; Morales & Holtschlag, 2013). Saudi Arabia has experienced changes in its entrepreneurial value since the oil boom of the 1970s, which drove up prices (Skoko, 2011). The preferences and priorities have changed from crafts and professions to employment and lifestyle. The ‘years of plenty’ created an unsupportive culture for entrepreneurship (Tomlinson, 2007; Skoko, 2011; Hamid, 2012). Hence, this study investigates the influence of this change in cultural values.

Third, the present research is in line with the need for more entrepreneurs as stated by the Ninth Development Plan of Saudi Arabia (NDP); “although there are many successful national businessmen, meeting the development aspirations of the country requires the presence of more entrepreneurs” (NDP, 2010, p.162). Consequently, the country

development plan expressed this issue through strategies and objectives of promoting entrepreneurship and a working culture (NDP, 2010). By identifying determinants of self-regulation and the influence of cultural values, the study can shed light on the challenges surrounding how to attract more entrepreneurs.

1.6. Research Outline

This research consists of seven chapters, including this introduction chapter. The second chapter focuses on the case of Saudi Arabia including a review of the Kingdom's economic conditions along with the main economic issues and status of entrepreneurship. Chapter three is about entrepreneurship and the goal intention-action gap. It highlights entrepreneurship definition and importance. Further, it introduces the intention-action gap concern. Chapter four discusses the role of self-regulation in bridging the intention-action gap, including possible causes of this gap, namely, cognition and cultural values. In addition, it explains the study hypotheses along with the study model. Chapter five is the methodology chapter which explains the research philosophy, approach, design, data collection, and variables. Chapter six presents the data analysis including measurement model analysis and structural model analysis. Chapter seven discusses the research results and addresses the research questions. Finally, chapter eight concludes the study and states research implications, limitations, and directions for further research.

This chapter introduces the research aim and objectives. It highlights the research background of entrepreneurship importance and the main concern of the intention-action gap. Further, it identifies the research aim and objectives of bridging the intention-action gap through self-regulation. Next, the significance of the research is explained within the Saudi Arabia context. Finally, the research outline is presented.

In summary, the literature explored as part of this study has found that the importance of entrepreneurship is salient among countries and societies. Policy makers realise the crucial role of entrepreneurship for economic growth and development. Hence, they set policies and plans to promote entrepreneurial activity. However, although many people formulate entrepreneurial goal intention, they fail to translate their intention into action. This phenomenon is called the intention-action gap. The intention-action gap can discourage the growth of potential, successful entrepreneurs and the efficiency of intervention programmes. Hence, it is important to address this concern.

The present research highlights two main causes of intention-action gap; namely, cognition and cultural values. The former reflects the way people think and interpret the world around them. Thus, they may consider entrepreneurship as unfavourable and negatively evaluate their capability to create venture. The latter reflects basic beliefs that may be unsupportive for entrepreneurship. Some argue that entrepreneurial goal intention alone is insufficient to bridge the intention-action gap (Kautonen et al., 2013; Van Gelderen et al., 2015; Gielnik et al., 2014). Hence, there is a need for a more proximal predictor of action, namely, self-regulation. Consequently, this study aims to identify determinants of self-regulation that enable people with ongoing entrepreneurial goal intention to progress into entrepreneurial potential. Having looked at the research introduction, the next chapter looks at the case of Saudi Arabia in light of the research question.

Chapter Two: The Case of Saudi Arabia

The Global Entrepreneurship Monitor (GEM) reported that many countries score low on entrepreneurial activity (GEM, 2009, 2010). Here for example, Saudi Arabia scored below the average of comparable countries in entrepreneurial activity in 2009 and 2010. This is despite scoring above average in all aspects of positive attitudes and perceptions about entrepreneurship including entrepreneurial intention, perceived opportunity, perceived capability, high status to successful entrepreneurs, and entrepreneurship as a good career choice, thus demonstrating a discrepancy between entrepreneurial intentions and action. Referencing the previous chapter, this might be attributed to cognitive factors as well as cultural values.

This chapter highlights the intention-action gap problem in the Saudi Arabian context. It starts by Saudi Arabia economy overview, economy concerns, and need for entrepreneurs. Then, it focuses on entrepreneurship in relation to the concerns over the intention-action gap in this area. Finally, this chapter concludes with possible reasons for the intention-action gap in Saudi Arabia including cultural values and self-regulation determinants.

2.1 Saudi Arabia Economic Overview

The Saudi economy relies mainly on oil where the government controls the majority of economic activities (Skoko, 2011). According to the Saudi Central Department of Statistics (SCDS), oil exports represent around 85% of export earnings compared to 12% for non-oil exports, and the oil sector represents 49.6% of gross domestic product (GDP) (SCDS, 2012).

Although oil revenues transformed the country from a low-income country to a high-income country, there is a major concern that Saudi Arabia is primarily an oil-based economy (Hamid, 2012). Hamid (2012) argued that dependency on a single source of revenue to

sustain economic development and growth could be dangerous due to fluctuations in oil prices. In the 1970s, there was considerable increase in GDP per capita (gross domestic product divided by midyear population) in Saudi Arabia due to a global oil prices boom. Later, in the 1980s, this bubble deflated by 58% (Skoko, 2011). According to the World Bank (2016), the annual percentage growth rate of GDP per capita for Saudi Arabia scored its highest rate of 16.9% in 1973 whereas it dropped to -15.9% in 1982 as shown in Figure 1.

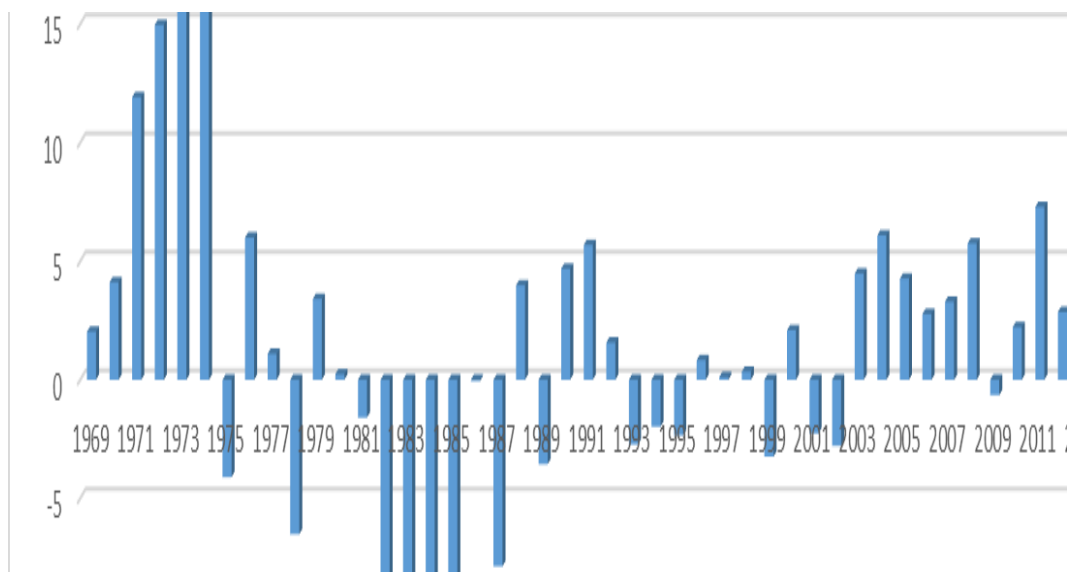


Figure 1 GDP Per Capita Growth (Annual %)

Source: World Bank (2016)

According to the Saudi Ninth Development Plan (NDP), the Saudi government has recognised the consequences of being an oil-based economy. This has brought forward the role of the private sector in contributing to the country's strategic goals. These goals include economic diversification, productivity enhancement, and competitiveness development (NDP, 2009). Subsequently, private sector participation and collaboration has been encouraged (NDP, 2010). For example, in 2016, the World Bank Doing Business annual report ranked Saudi Arabia economy 82 out of 189 countries with improvement in the score from 2014 to 2015. The ranking is based on several criteria such as starting business, registering property,

getting credit, and protecting minority investors (World Bank, 2016). Despite attempts at diversification, Saudi Arabia's economy has encountered some pressing concerns; of which unemployment poses the greatest challenges (Tomlinson, 2007; Al-Habib, 2012; Hamid, 2012). In 2015, the Manpower Report indicated that unemployment among Saudis (15 years and above) in the first half of 2015 was 11.6% (SCDS, 2015). Further, Saudi Arabia's economy is heavily dependent on five and half million non-Saudi workers (Skoko, 2011). This huge number has caused major concern for Saudi authorities in respect to the Kingdom's unemployment rate (NDP, 2010). According to Al-Habib (2012), 65% of the population are below the age of 18, and the ability of the public sector to provide meaningful job opportunities is limited. Hamid (2012) stated that the Saudi Labour Ministry is facing a huge challenge by aiming to create six million jobs by 2030 in the private sector. According to Tomlinson (2007), Saudi Arabia must create 3.5 million jobs in 10 years to employ its youthful population.

Al-Habib (2012) argued that the dilemma is that economically, socially, and politically, the Saudi government cannot afford to let the younger generation remain unemployed. At the same time, the private sector alone cannot create and absorb this volume of employment. Suggestions were that developing a blue-collar workforce and introducing economic cities might create plenty of jobs. However, the results of this approach have not had any measurable success (Tomlinson, 2007).

Tomlinson (2007) asserted that there is an ongoing debate between the private sector and policy makers about unemployment in Saudi Arabia. The private sector argues that they have several problems such as scarcity of qualified Saudis, unjustified restrictions on visas for foreign recruitment, and high Saudization quotas enforced by the Ministry of Labour (Tomlinson, 2007). Policy makers on the other hand blame the private sector for several

issues including not taking responsibility to train Saudis, relying on low-cost non-Saudi labour for many years, and considering unemployment as a governmental issue rather than a public issue (Tomlinson, 2007). Thus, in 2011, the Saudi Ministry of Labour introduced initiatives to employ citizens such as the initiative of zones (Nitaqat) to increase the number of citizens working in the private sector. This initiative divides establishments into four zones based on the percentage of citizens each one hires. These zones are excellent, green, yellow, and red. The minimum percentages of national employees for these zones are 40%, 12%, 7% and 4%, respectively. Establishments that achieve excellent or green zone gain benefits and are entitled to government support (Ministry of Labour, 2013).

In this sense, Saudi Arabia policy makers have recognised the importance of entrepreneurship (NDP, 2010); this is reflected in the related development plans, strategies, policies, objectives, programmes, and actions. For example, one of the trade strategy objectives was “to promote the culture of self-employment in community by increasing the awareness about SMEs role in reducing unemployment rates” (NDP, 2010, p.287).

According to the NDP, the focus on small and medium enterprises (SMEs) has been emphasised for several reasons (NDP, 2010). First, SMEs are recognised as one of the crucial solutions for unemployment in Saudi Arabia, which supports the principals of raising living standards and economic stability (NDP, 2010). Second, the SME sector can contribute to Saudi Arabia’s intention to support the private sector in leading the economic growth and improving quality of services. Third, encouraging entrepreneurship particularly in the less developed regions and cities in Saudi Arabia can lead to improving services and balancing the development in the country (NDP, 2010). Fourth, supporting entrepreneurship in the fields of technology, telecommunication, and manufacturing will facilitate one of the major

development plan principals, namely, economic diversification. The final solution is enhancing investment environment and competitiveness (NDP, 2010).

Having looked at Saudi Arabia economy concerns and the need for entrepreneurs, attention now turns to the situation of entrepreneurship in the Saudi Arabian context.

2.2 Entrepreneurship in Saudi Arabia

Saudi Arabia took several actions to encourage and support entrepreneurship such as establishing funds (NDP, 2010). Some of these funds include the Saudi Industrial Development Fund (SIDF, 2015), the Human Resources Development Fund (HRDF, 2015), the Centennial Fund (TCF, 2015), and the Saudi Credit and Saving Bank (SCSB, 2015). Moreover, several authorities such as the Saudi Arabian General **Investment** Authority (SAGIA, 2015) and the Saudi Industrial Property Authority (MODON, 2015) have been set up. Further, several programmes have been implemented such as BADIR for technology incubators (Badir, 2015), INJAZ for youth entrepreneurship (Injaz-Saudi, 2015), and KAFALAH (Kafalah, 2015).

According to Hamid (2012), the development and enhancement of small and medium enterprises (SMEs) lies at the centre of the model for private sector-led growth. The small enterprises employ nine workers or less whereas medium enterprises employ 10-49 workers (SCDS, 2012). SMEs generate the most jobs in Saudi Arabia (Hamid, 2012). According to the Economic Review undertaken by the National Commercial Bank (NCB), SMEs contribute 28-33% of the country's GDP and employ 40% of the total labour force in Saudi Arabia (NCB, 2011).

According to the Saudi Ministry of Economy and Planning (MEP), the importance of entrepreneurs is clearly highlighted in the Ninth Development Plan as follows:

‘Entrepreneurs are the elite among business persons. They command knowledge, expertise and wealth, and they are, therefore, in a position to make, based on technical studies and rational expectations, wise, daring, ambitious investment decisions and expand investment opportunities to achieve extraordinary profits. Successful international experiences, in Japan, Malaysia and among other countries, show how effective the role of entrepreneurs could be in enhancing private-sector-led development. Although there are many successful national businessmen, meeting the development aspirations of the country requires the presence of more entrepreneurs’ (NDP, 2010, p.162).

The early-stage entrepreneurs in Saudi Arabia tend to fall largely in the 25-34 age group, are likely to hold a university degree, enjoy household incomes of \$4000 per month, are almost exclusively male, are opportunity rather than necessity entrepreneurs, and tend to seek greater independence or higher personal income (Skoko, 2011).

Vershinina and Rodionova (2011, p.710) found that “pull factors like opportunity to save financial resources, to buy property at home, to have better living conditions”. According to GEM (2009), the characteristics of the majority of Saudi entrepreneurs are that they are young, educated, and wealthier than other populations, and are opportunity entrepreneurs rather than necessity entrepreneurs. The preferred industry is services such as retail, restaurants, motor vehicles and health rather than financial or insurance industries. Moreover, the new business entrepreneurs are more likely to utilise technology than existing business owners are; this use of technology is mainly to help entrepreneurs to perform external trade.

According to Bugshan (2011), Saudis living in major cities are twice likely as their counterparts in the rest of the country to be business owners (9% vs. 4%). They have plans to open a business in the next 12 months (4% vs. 2%). Those in major cities are more profit-oriented and less risk-averse. Nearly two thirds of Saudis in major cities say they would rather take risks and build their own business than work for someone else, compared with less than half of those in minor cities (Bugshan, 2011).

Having looked at the economic overview and entrepreneurship in Saudi Arabia, the intention-action gap in Saudi Arabia is addressed next.

2.3. Intention-Action Gap in Saudi Arabia

According to the Global Entrepreneurship Monitor (GEM), Total Early Stage Entrepreneurial Activity (TEA) is one of the entrepreneurship indicators which reflect the status of entrepreneurship among countries (GEM, 2009). GEM defines TEA as “percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business” (GEM, 2009, p.61). The report revealed that TEA levels vary among countries with different economic and social conditions. The differences among comparable countries’ economies in entrepreneurial activity are given in Table 1 (GEM, 2009, p. 21). Note that Saudi Arabia has the lowest score of 4.7 which is below average of 17.7.

Table 1 Entrepreneurial Activity in 2009

Country	TEA
Algeria	16.7
Guatemala	26.8
Jamaica	22.7
Lebanon	15.0
Morocco	15.8
Saudi Arabia	4.7
Syria	8.5
Kingdom of Tonga	17.4
Uganda	33.6
Venezuela	18.7
West Bank and Gaza Strip	8.6
Yemen	24.0
average (unweighted)	17.7

Source: GEM (2009, p. 21)

Further, GEM reported the differences among countries in perceptions and attitudes in Table 2 (GEM, 2009, p. 18).

Table 2 Entrepreneurial Attitudes and Perceptions in 2009

Country	Perceived Opportunities	Perceived Capabilities	Entrepreneurial Goal Intentions	Entrepreneurship as a Good Career Choice	High Status to Successful Entrepreneurs
Algeria	48	52	22	57	58
Guatemala	57	64	18	77	69
Jamaica	42	77	29	76	77
Lebanon	54	77	22	85	79
Morocco	53	78	27	82	86
Saudi Arabia	69	73	34	80	89
Syria	54	62	54	89	89
Kingdom of Tonga	56	53	6	91	52
Uganda	74	85	58	81	85
Venezuela	48	59	29	76	69
West Bank and Gaza Strip	50	56	24	88	78
Yemen	14	64	9	95	97
average (unweighted)	52	67	28	81	77

Source: GEM (2009, p. 18)

The figures indicated that entrepreneurial intention score for Saudi Arabia is 34 which is higher than the average of 28. In fact, Saudi Arabia achieved above average scores in various aspects of positive attitudes and perceptions about entrepreneurship including entrepreneurial goal intention, perceived opportunity, perceived capability, and high status among successful entrepreneurs. Thus, although Saudi Arabia scored higher than average on entrepreneurial goal intention, the country's entrepreneurial activity score is far below average: this indicates an intention-action gap. The following section looks at possible reasons for the entrepreneurial intention-action gap in Saudi Arabia.

2.4. Entrepreneurship and Inhibiting Factors in Saudi Arabia

The GEM surveys about Saudi Arabia revealed that several factors might inhibit entrepreneurship activities in Saudi Arabia. These factors include social attitudes and cultural norms (GEM, 2009, 2010). As far as social attitudes are concerned, people in Saudi Arabia consider entrepreneurship as an acceptable career path and a way to create wealth (Hamid, 2012). Further, they look at entrepreneurs as high-status individuals who command respect (GEM, 2009, 2010). The motivation is mainly opportunity-driven rather than necessity-driven (GEM, 2009).

As far as cultural norms are concerned, however, it has been argued that the years of plenty have generated a generation looking only for white-collar jobs (Tomlinson, 2007). Skoko (2011) argued that Saudi culture in general does not encourage the very characteristics needed for individuals to be successful in starting up and managing their own businesses. While Saudis admire entrepreneurs, the general population seems to lack the culture and personal skills needed to facilitate entrepreneurial ventures (Skoko, 2011). Hamid (2012) argued that Saudi Arabia's culture is holding back the growth of the SME sector as nationals still attach prestige to more traditional professions and the government employs the majority of the working population.

The argument of the influence of the years of plenty on Saudi culture is further emphasised in the country's Ninth Development Plan (NDP). According to the NDP,

‘...relative abundance of resources in the Kingdom and the tradition of the state bearing responsibility for providing services have produced a special kind of social culture, with young people becoming dependent on the state to provide employment opportunities, particularly in the public sector’ (NDP, 2010, p.323, emphasis added).

Consequently, although the scope of this study is the intention-action relationship, the cultural values variable is included. This is due to the salient influence of cultural values on

the Saudi Arabian context. Thus, this study addresses this demand by investigating both direct and indirect relationships between cultural values and entrepreneurial goal intention. Further, it explores the determinants of self-regulation that help to translate entrepreneurial intention into action. Other environmental aspects such as institutional factors might be important potential inhibitors, hence, they have been acknowledged by the researcher as a part of the further research issues.

2.5. Summary

Saudi Arabia's economy is highly dependent on oil revenues. Hence, oil prices fluctuation causes major concern for the government. Consequently, policy makers encourage diversifications and involvement of the private sector. They encounter challenges such as high rates of young population and unemployment. One of the suggested policies is promoting entrepreneurship. However, although people in Saudi Arabia have high entrepreneurial intention, they fail to translate their intention into action. Further, it is argued that cultural values and personal skills are unsupportive for entrepreneurial activity. The case of Saudi Arabia has been selected for two main reasons for the purpose of this thesis. First, there is high entrepreneurial intention but low entrepreneurial activity which reflects the concern of the intention-action gap. Second, the economic condition change due to oil revenues points to cultural values change.

By exploring the entrepreneurial intention-action gap in the Saudi Arabian context, this study sheds light on two important aspects. First, it investigates the dominant justification for low entrepreneurial activity in Saudi Arabia – namely, cultural values. This argument postulates that values change during years of plenty and this is the main reason for low entrepreneurial activity. Second, it investigates another possible cause for entrepreneurial goal intention-action gap in Saudi Arabia – namely, cognition. Third, it explains the interactions between

cultural values and cognition. This can help us explore the processes that underlie formulating entrepreneurial intention and, hence, the entrepreneurial intention-action gap in Saudi Arabia.

Having looked at Saudi Arabia case, the next chapter discusses entrepreneurship and the intention-action gap.

Chapter Three: Entrepreneurship and the Intention-Action Gap

This chapter highlights the definitions and importance of entrepreneurship along with the reasons for the need for more entrepreneurs and the dominant intention models for predicting entrepreneurial behaviour. Further, it underlines the concern of the intention-action gap and how existing literature tackles it. Finally, it concludes by stating the gap in entrepreneurship literature and how this study contributes to knowledge in the entrepreneurship discipline.

3.1. Definitions

Entrepreneurship can be defined as a process. According to Balan and Metcalfe (2012, p.368), entrepreneurship is “a process of starting up a new enterprise”. According to Hisrich et al. (2007, p.8), entrepreneurship refers to "the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence". Thus, it is “seizure of all activities geared toward the goal of firm creation” (Khan et al., 2014, p. 39). A recent study has pointed out that there is fairly general agreement about defining entrepreneurship as “a process through which the possibilities of producing future goods and services are discovered, assessed, and utilized” (Laguna, 2013, p.253). This has led some scholars to conceptualise entrepreneurship as "a process of envisioning the future" (Arora et al., 2013, p. 359) where entrepreneurs have the ability to make good judgments by combining the available resources (Down, 2010).

By looking at entrepreneurship from the process perspective, it is crucial to consider different stages and changes over time. As choice leads to action (Holland & Garrett, 2013), the first stage towards fortune creation is making a choice. Thus, it is argued that when an individual takes entrepreneurial action it means that he/she is responding to a choice under uncertain situations to create value out of opportunity (McMullen & Shepherd, 2006). By linking

entrepreneurship to making choices and decisions, some scholars view entrepreneurship as a behaviour of seizing opportunities (Wennberg et al., 2013). Although motivations such as opportunities can trigger the process of entrepreneurship, it is argued that entrepreneurs may experience positive as well as negative emotions (Patzelt & Shepherd, 2011). Thus, some defined entrepreneurship as a behaviour that creates both positive and negative emotions depending on people's coping strategy (Patzelt and Shepherd, 2011).

This study is in line with defining entrepreneurship as a process over time, which starts by making a choice. This definition is in accordance with several scholars' arguments. First, people often pass through several decision stages before initiating an action (Bagozzi & Warshaw, 1990; Brannback et al., 2007). Second, it is in accordance with the Rubicon model of action phases which include pre-decision, pre-action, action, and post-action (Heckhausen, 1991; Spiess & Wittmann, 1999; Gollwitzer, 2012). Third, entrepreneurial goal intention and action take place at totally different action levels (Geldren et al., 2015).

3.2. Importance of Entrepreneurship for Economic and Society Development

Entrepreneurship can provide opportunities for millions of people all over the world including men, women, minorities, and immigrants to experience life success and hence be a part of economy progress (Kuratko, 2005). This section highlights the importance of entrepreneurship for economic and social development.

Entrepreneurship plays a vital role in economies at both local and global levels which leads to various stakeholders considering it as a route out of economic recession (Down, 2010). This role is highlighted as a way to face the global challenges of downturns (Sowmya et al., 2010), ignite innovation, enhance employment (Alfonso & Cuevas, 2012; Harun, 2013; Laguna, 2013; Setiawan, 2014; Koe et al., 2014), accelerate societal development (Bullough et al., 2014), and lead economic development in peripheral areas (Vaillant & Lafuente, 2007).

Some argue that it is “the catalyst for economic transformation at a local, regional, and national level” (Ritchie and Brindley, 2005, p.104); “the lifeblood of our economy” (Robertson et al., 2003, p.308); “one of the major engines of economic growth” (Rasmussen & Sorheim, 2006, p. 185); “economic panacea” (Packham et al., 2010, p. 568); and helpful for “fighting unemployment” (Hofstede et al., 2004, p.2). According to Obschonka et al. (2011), entrepreneurship is a way to deal with the ongoing global changes, challenges, job risks and opportunities. As stated above, entrepreneurship can provide a chance for millions of people all over the world to experience success in life and contribute to economic progress (Down, 2010). Consequently, rapid global changes such as economic recession, unemployment, and societies’ requirements stimulate the need for entrepreneurial activity and more entrepreneurs (Kuratko, 2005; Campbell, 2012). Paleno and Kleiner (2000) argued that many small firms are more flexible and have the ability to respond faster to social needs as well as to the shocks in markets. Hence, they can manage to survive while larger firms may undergo decline. Further, small firms have the ability to adjust to new situations easier and faster compared to large firms (Cheung, 2008).

The changes in demand and technology in industrialised countries caused the transfer from the mainly regulated economies of the 1950s and 1960s to the entrepreneurial economy through small businesses in the 1990s (Iacobucci & Micozzi, 2012). Global economy changes such as global economic crises have affected the perception about employment. Collins et al. (2004) highlighted this change by stating that the notion of secure jobs is not more valid where new graduates need to compete for high-level employment. Large firms began to hire fewer employees which exerted pressure on graduates to think about entrepreneurship as an alternative path.

Fuchs et al. (2008) argued that many large firms react to competitive pressure either by changing the location to another country with lower production cost or by reducing the task force and downsizing. In this case, the idea of safe and secure jobs is doubtful and people start facing the challenge of either finding new jobs or starting up their own business. This is emphasised by the European Commission in 2004 by stating that the difficulty to find jobs is the main motivator for entrepreneurial activities (Fuchs et al., 2008).

Another major change is the increasing focus on entrepreneurship by regulations, policies, and education. This focus is accompanied with a recognised shift in understanding the entrepreneurship concept. According to McKeown et al. (2006), in the previous 50 years, the number of entrepreneurship institutions has increased from a few courses to 1500 institutions around the world. This has changed the impression about entrepreneurship from greed and self-interest to creativity and job creation (Iacobucci & Micozzi, 2012).

Rapid technological progress is another change which affects the demand for work-forces in many markets. One of these changes is the effect of technology on performing different jobs, thus reducing work processes and human manual jobs. These changes might be more salient in several industries such as car manufacturing, travel, and electronic trade. This situation has motivated many people to shift from being job seekers to becoming job providers through entrepreneurship. Miguel et al. (2013) argued that entrepreneurs are able to make changes in the economy because of their innovations of products and organisations. Thus, entrepreneurship can act as a vehicle for innovation (Caggese, 2012) through renewing processes, changing market structures, improving productivity, and creating balance through reducing monopoly (Fuchs et al., 2008).

Gibb and Cotton (1998) articulated that there is a need for entrepreneurial responses to deal with emerging uncertainty and complexity all over the world. The sources of the uncertainty

and complexity include global pressures, state repositioning, organisation repositioning, and individual repositioning, as given in Figure 2.

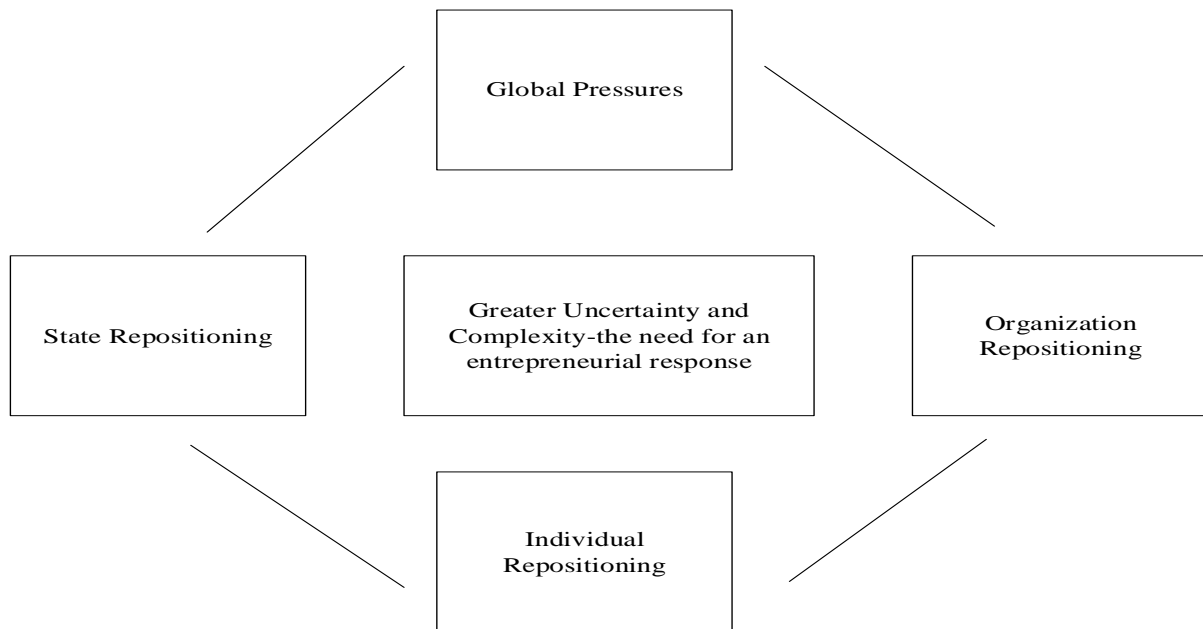


Figure 2 The Need for an Entrepreneurial Response

Source: Gibb and Cotton (1998, p.8)

At the *global* level, the situation of fewer trade barriers as well as progress in telecommunications, technology, and transportation generate greater uncertainty, complexity, and opportunity at the same time. As far as the *societal* level is concerned, some factors such as markets' liberalisation, environmental concerns, and new governments' regulations are all presenting society with greater complexities, challenges and opportunities. At the *organisational* level, there are different changes such as downsizing, re-engineering, and mergers which create uncertain environments. Finally, at the *individual* level, individuals face various challenges, which bring with them the same challenges and opportunities. Some of

these challenges are work stress, additional duties, and more family responsibilities. These changes have stimulated the need for entrepreneurial responses to cope with global challenges (Colette et al., 2005).

Kuratko (2005) further highlighted several advantages for entrepreneurship to have become one of the most effective economic forces in the last two decades. These advantages include generating job opportunities, income growth, and services improvement. Colette et al. (2005) articulated the role of entrepreneurship in enabling people to cope with downsizing and jobs loss due to restructuring and privatisation of organisations.

As far as society is concerned, entrepreneurship is one of the most important factors which enhance the socio-economic relationship (Shindina et al., 2015). Thus, entrepreneurship can help to activate the role of nations and support societies' wealth and growth. Creating entrepreneurial culture in societies through spreading awareness about entrepreneurship and introducing role models can motivate and inspire societies. The entrepreneurial culture can develop advantages for societies by creating a balance between small and large firms, supporting innovation, opening up new industries, and improving quality of products and services (Iacobucci & Micozzi, 2012).

Given all the above, there is a great need for people to have entrepreneurial skills and abilities to deal with life's challenges and an uncertain future. Entrepreneurs can assist societies to rely on themselves rather than on wealthy nations by seizing opportunities and achieving goals. This can help to increase life satisfaction among individuals and communities (Down, 2010). Thus, in order to foster the advantages of entrepreneurship, there is a need for more entrepreneurs (Kuratko, 2005). Entrepreneurs are people with high confidence and the ability to act under uncertainty (Palich & Bagby, 1995; Bolton & Thompson, 2003; Baron, 2008; Harun, 2013).

3.3. Predicting Entrepreneurial Behaviour

The need for more entrepreneurs has encouraged scholars to predict entrepreneurial behaviour to understand and explain people's propensity to venture creation (Schlaegel & Koenig, 2014). Alfonso and Cuevas (2012) argued that studying the entrepreneurial process and gaining insights about its origin is crucial to foster the advantages of entrepreneurship for economies and societies.

Traditionally, scholars have tried to predict entrepreneurial behaviour solely through personality and demographics approaches (Palmer, 1971; Brockhaus & Horwitz, 1986). However, these approaches failed to predict entrepreneurial behaviour (Gartner, 1988; Chen et al., 1998; Krueger et al., 2000). The main concern was the theories and methods, which implemented to recognise these characteristics and demographics (Robinson et al., 1991). Thus, other scholars have criticised this approach and introduced another predictor – namely, attitudes (Robinson et al., 1991). However, this approach was further criticised by scholars arguing that predicting entrepreneurial behaviour using only attitudes and external factors is not a robust approach. Consequently, predicting entrepreneurial behaviour using only individual or situational variables proved to be inadequate to explain variance in entrepreneurial behaviour (Krueger et al., 2000).

Another approach to predict entrepreneurial behaviour is intention. Intention is generally defined as the extent to which an individual is ready to perform behaviour (Ajzen, 1991, 2014). It represents a motivational state where people with high intention are motivated to exert more time and effort to perform a particular behaviour (Sheeran, 2002). It is argued that intention is a better and more immediate predictor of planned behaviours compared to personality and situational variables (Shapero & Sokol, 1982; Ajzen, 1991; Krueger et al., 2000; Kautonen et al., 2013). Thus, some scholars articulated that intentions can be the best

predictor which led to a better understanding of planned behaviours (Shapero & Sokol, 1982; Bagozzi et al., 1989; Ajzen, 1991; Krueger et al., 2000).

As far as entrepreneurship is concerned, Bird (1992) argued that entrepreneurship is planned intentional behaviour. Later, Krueger and Carsrud (1993) argued that starting a business is intentional and, hence, entrepreneurial intention is the best predictor for entrepreneurial behaviour. Entrepreneurial intention refers to readiness of an individual to become involved in entrepreneurship (Goethner et al., 2012). It is defined as recognition by a person that they aim to start business at some point in the future (Thompson, 2009). Krueger et al. (2000) described entrepreneurial intention as the target behaviour of venture creation whereas Quan (2012) argued that entrepreneurial intention refers to willingness to create a business.

Consequently, entrepreneurship scholars have focused on entrepreneurial intention to understand how and why people start their business (Krueger et al., 2000; Alfonso and Cuevas, 2012; Sedigheh & Noor, 2014). The focus on entrepreneurial intention has led to the argument that strong entrepreneurial intention for fortune start-up should result in an attempt (Bagozzi, 1992). Even some argued that entrepreneurial intention might explain the reasons behind several start-ups in one's lifetime (Krueger et al., 2000).

Entrepreneurship scholars have widely applied two intention models to study entrepreneurial behaviour – namely, the theory of planned behaviour (TPB) (Ajzen, 1991) and the entrepreneurial event model (EEM) (Shapero & Sokol, 1982). In a meta-analysis study about determinants of entrepreneurial intent, Schlaegel and Koenig (2014) identified 98 studies which employ TPB and EEM in the entrepreneurship field. These include 41 studies using TPB, 32 studies applying EEM, and 25 using both models to predict entrepreneurial intention.

The TPB model states that behaviour of a person is determined by intention, which is conditioned at the same time by attitude toward the behaviour, subjective norms, and

perceived behavioural control. Attitude toward the behaviour refers to how favourable the behaviour is whereas subjective norms reflect social pressure of significant others about behaviour. The perceived behavioural control captures one's perceptions about ability to perform the behaviour. In the case of high control, intention is sufficient to predict performing the action; however, in the case of difficulty in performing action, intention along with perceived behavioural control is essential to predict action (Ajzen, 1991). The TPB model is represented in Figure 3.

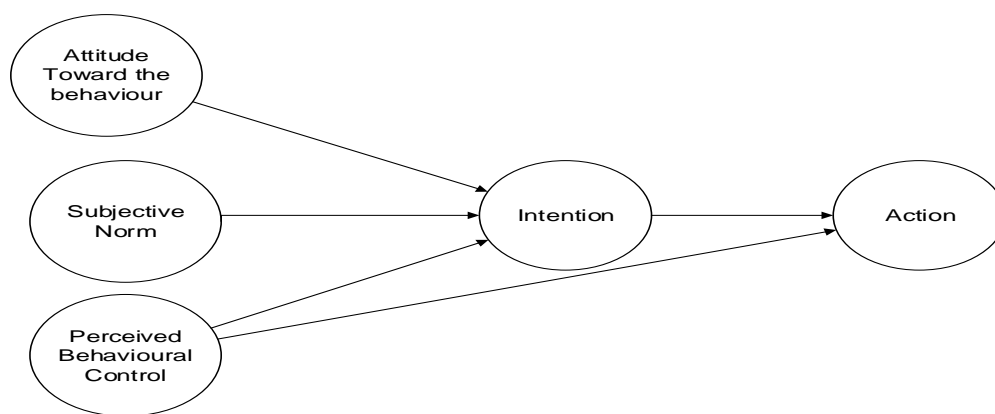


Figure 3 The Theory of Planned Behaviour (TPB)

Source: Ajzen (1991, p. 182)

The EEM postulates that entrepreneurial goal intention depends on three determinants – namely, perceived desirability, perceived feasibility, and propensity to act. *Perceived desirability* refers to the personal attractiveness of entrepreneurial activity whereas *perceived feasibility* refers to individual feelings about their capability to start a business (Krueger et al., 2000). The model further indicated that these two constructs should be accompanied with *propensity to act* which indicates the ability to act on a choice (Krueger et al., 2000). Both TPB and EEM have almost similar predictive power (Krueger et al., 2000). The EEM is represented in Figure 4.

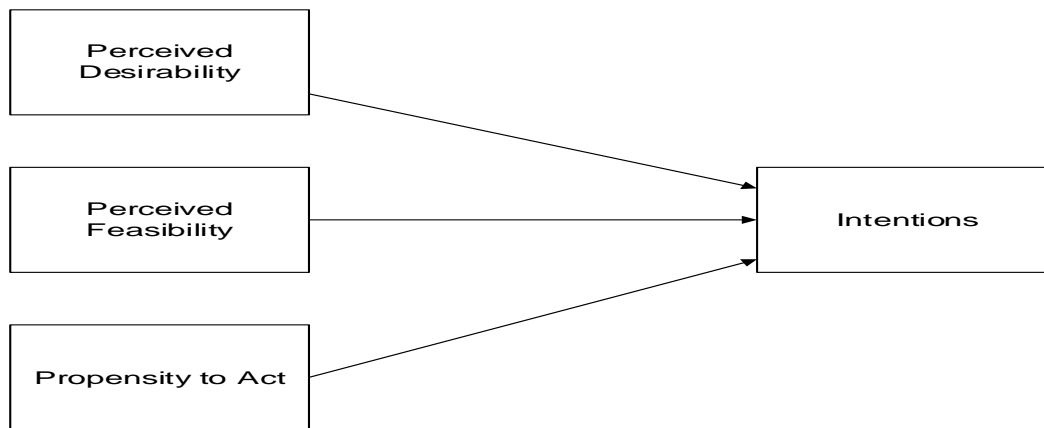


Figure 4 Entrepreneurial Event Model (EEM)

Source: Krueger (1993, p.7)

The TPB and EEM have proved to be robust and powerful in predicting *entrepreneurial intention* (Krueger, 1993; Krueger et al., 2000; Van Gelderen et al., 2008; Liñán & Chen, 2009; Almobaireek & Manolova, 2013; Schlaegel & Koenig, 2014; Kautonen et al., 2015). For example, previous studies in the entrepreneurship domain revealed that the TPB predicts 30%-45% of entrepreneurial intention. In other words, attitude toward entrepreneurship, subjective norms, and perceived behaviour control explain 30%-45% of entrepreneurial intention (Van Gelderen et al., 2008; Liñán & Chen, 2009). Further, a recent study by Kautonen et al. (2015) found that these three antecedents explain 59% of entrepreneurial intention. Although intention models are powerful predictors of entrepreneurial intention, there is a major concern – namely, intention-action gap (Gollwitzer, 1993; Kautonen et al., 2013). This concern is discussed in the following section.

3.4. Intention-Action Gap

Although intention models have proved to be powerful predictors of intentions, their ability to sufficiently predict behaviours is questionable. Meta-analyses from different human behaviours such as exercising and dieting found that, on average, intentions can predict 28% of the variance in *behaviour* (Sheeran, 2002) whereas another meta-analysis by Armitage and

Conner (2001) revealed that intention can predicts only 22% of action variance. Krueger et al. (2000) argued that a range of studies indicates that intention, on average, can explain 30% of the variance in behaviour. Blanchard et al. (2002) found that intentions predict 22% of exercise behaviour while Gollwitzer and Sheeran (2006) pointed out that intentions account for 20%-35% of goal achievement. Despite these studies indicate that intention is a predictor of behaviour, many people fail to translate their intention into action (Gollwitzer, 1993, 1999; Sheeran 2002).

Previous studies from different contexts have criticised the ability of TPB and EEM to adequately predict behaviours for several reasons. First, intention to perform a single act is different from intention to perform goal-directed behaviour (Brannback et al., 2007). In the case of goal-directed behaviours, people often pass through several stages before initiating an action (Bagozzi & Warshaw, 1990; Bagozzi, 1992; Gollwitzer, 1993; Brannback et al., 2007). Second, degree of control varies among different behaviours. In the case of challenging goals, translating intention into action might be problematic and requires dealing with obstacles of enactment such as lack of supply, resources, feasibility, and willpower (Kuhl & Beckmann, 1985, 1994; Bandura & Locke, 2003; Rasmussen et al., 2006).

Third, individuals may require different intention types alongside action stages (Gollwitzer, 1993, 1999; Quan, 2012). Sheeran (2002) argued that the ability of intention to predict action depends on several factors including behaviour type, intention type, and cognitive variables. Consequently, converting intention into action is not inevitable and intention itself is an insufficient predictor for action (Bagozzi et al., 1992; Gollwitzer, 1993; Norman & Sheeran, 2003; Van Hooft et al., 2005; Gollwitzer & Sheeran, 2006; Bayer et al., 2010; Quan, 2012) and there is a substantial intention-action gap (Gollwitzer, 1993, 1999; Sniehotta et al., 2005; Gollwitzer & Sheeran, 2006; Bayer et al., 2010; Wieber et al., 2015).

As far as entrepreneurship is concerned, many people formulate intention to start business but they do little to turn their intention into action (Van Gelderen et al., 2015; Kautonen et al., 2015). Van Gelderen et al. (2015) disagreed with the argument of entrepreneurial goal intentions being the best predictor of entrepreneurial action for several reasons. First, entrepreneurship is a very complex behaviour and involves various activities compared to other more simple acts. Hence, the intention-action relationship is stronger among simple acts rather than entrepreneurship. Second, entrepreneurship involves a longer time period compared to acting among other short-term behaviours. People often have low regulatory power in long-term goals and, hence, they tend to postpone or change preferences. This is supported by Ilouga et al. (2014) who argued that intention is inadequate for action initiation in the case of long-term behaviours such as entrepreneurship. Consequently, there is a sizeable entrepreneurial goal intention-action gap (Brannback et al., 2007; Kautonen et al., 2013; Ilouga et al., 2014; Van Gelderen et al., 2015; Kautonen et al., 2015).

Understanding entrepreneurial intention-action gap is important to avoid losing the advantages of potential profitable ventures (Van Gelderen et al., 2015). Societies can foster aspired potential entrepreneurs by reducing the failure to act (Reynolds, 2000) and the very long period of inaction among ongoing entrepreneurial intentions (Liao and Welsch, 2008). Further, dealing with such inconsistency between entrepreneurial intention and action can help people to understand how to translate their entrepreneurial intention into action. Hence, they can safeguard the advantages of entrepreneurship on economy and societies (Alfonso and Cuevas, 2012). According to Bandura (2003), the rapid global changes intensify the need for looking forward to achieve human success and turn inspirations into reality.

Goal attainment is an important aspect of life for two main reasons. First, failure to achieve desirable goals can cause discrepancy in well-being (Carver & Scheier, 1990). Second,

inability to realise attractive goals may negatively affect both psychological and physical health (Wrosch et al., 2005). Consequently, people can prevent negative consequences on well-being by applying self-regulation to accomplish their desirable goals (Wrosch et al., 2003). Thus, it is crucial to understand when people successfully convert their intention into action and when they fail to do so (Kautonen et al., 2013; 2015; Van Gelderen et al., 2015).

Concerns over the entrepreneurial goal intention-action gap have been clearly raised by several scholars (Krueger et al., 2000; Brannback et al., 2007; Kautonen et al., 2013; Fayolle & Linan, 2014; Van Gelderen et al., 2015; Kautonen et al., 2015). According to Kautonen et al. (2013), the lack of studies about the intention-action gap is somewhat surprising. As far as entrepreneurship is concerned, Fayolle and Linan, (2014) stated that the need for theoretical and empirical investigation about the intention-action relationship in the entrepreneurship context is critical. Thus, the most crucial research challenges on entrepreneurial goal intention are likely to emerge in the area of the intention-action link. According to Krueger et al. (2000), although entrepreneurial intention models focus on entrepreneurial intention, they ignore when new venture come into reality. Hence, it is crucial to explore how intention leads to action (Krueger et al., 2000).

The need to investigate the entrepreneurial intention-action gap is further supported by the argument that despite the rich literature about predicting entrepreneurial goal intention, the knowledge about translating entrepreneurial intention into action is fairly poor (Laspita et al., 2012; Kautonen et al., 2013). Fayolle and Linan (2014) argued that knowledge about mechanisms that influence translating intention into action is still poor. Many studies in the entrepreneurship field focused on formulating entrepreneurial goal intention and new business rather than converting entrepreneurial goal intention into action. Kautonen et al. (2013) asserted that although entrepreneurship research focuses extensively on

entrepreneurial intention and nascent entrepreneurship, they just begin to study turning entrepreneurial goal intention into action. Van Gelderen et al. (2015) further support this by stating that research on the relationship between intention and action in the entrepreneurship domain has only started recently.

Ultimately, entrepreneurship is more about actions than only intentions (Kautonen et al., 2015) where the only signal of the entrepreneurial mind-set is action (Brannback et al., 2007). Surprisingly, there is little evidence about converting entrepreneurial intention into action (Brannback et al., 2007; Kautonen et al., 2013; Schlaegel & Koenig, 2014; Kautonen et al., 2015). Schlaegel and Koenig (2014) conducted a meta-analytic study about determinants of entrepreneurial intent and found that out of 98 studies conducted in 25 years using TPB and/or EEM, only three published studies addressed the intention-action relationship. Thus, many studies applied entrepreneurial intention solely with the implicit assumption that intentions will be translated into actions (Kautonen et al., 2015). The first study applied the full TPB model including the intention-action link in entrepreneurship context concluded that self-employment intentions predict entry into self-employment (Kolvereid & Isaksen, 2006). However, the intention was about the likelihood of working full time for the new business rather than starting a new venture. Further, the action measure was about the average number of working hours.

The second study by Kautonen et al. (2013) was the first longitudinal study in the entrepreneurship context to use the full TPB model to test the relationship between entrepreneurial intention and action. The results indicated that TPB explains 41% of entrepreneurial intention, which is within the range of other disciplines. As far as action is concerned, the study revealed that the TPB model explains 39% of entrepreneurial action. However, among people who expressed their entrepreneurial goal intention, only 9.4% have

started a business and 6% have taken initial steps within a period of three years. This indicates a discrepancy between entrepreneurial intention and action in the context of start-up businesses. Further, the study lacks the ability of generalisation due to the small numbers of participants who participated in both study waves. This disadvantage was acknowledged by authors who stated that only an adequately large sample would enable the study to draw robust conclusions about the entrepreneurial intention-action link using the TPB model (Kautonen et al., 2013).

The third study by Goethner et al. (2012) integrated economic factors with psychological factors of TPB to predict entrepreneurial intentions and behaviour. Although the study results supported the intention-action relationship, it has some limitations. First, the study focused on the academic entrepreneurship domain which refers to how scientists use their knowledge and research to introduce their inventions into markets. Second, it is expected that the process of translating academic entrepreneurial intentions into academic entrepreneurship behaviour differs from the process adopted in the private sector (Fini & Lacetera, 2010). Third, although the intention-action link was supported, some scientists who expressed intention to market their inventions fail to take action. This is further pointing to inconsistencies between entrepreneurial intention and action (Goethner et al., 2012).

A recent study by Kautonen et al. (2015) using the full TPB model in entrepreneurship context revealed that the model explained 31% of start-up action. However, 63% of participants who articulated that they had entrepreneurial goal intention in the first wave have not taken any action by the second wave. This is further indication of the difference between entrepreneurial intention and action. In fact, another recent study, by Gelderen and colleagues (2015) revealed an inconsistency of 69% between entrepreneurial intention and action. Consequently, although the latest studies about the relationship between entrepreneurial

intention and action are limited, they have one common feature –namely, the entrepreneurial intention-action gap.

The limited number of studies about the entrepreneurial intention-action link supported the ability of the TPB intention model to predict entrepreneurial action but pointed clearly to the concerns over the intention-action gap in the domain of venture creation. The percentages of participants who expressed their entrepreneurial intention but failed to initiate action in the recent studies were 84%, 63%, and 69%, respectively. Despite the fact that the entrepreneurial intention is a crucial predictor of entrepreneurial action, it can only partially explain the variance in entrepreneurial action. Hence, entrepreneurial intention on its own is an insufficient predictor of entrepreneurial action, and other factors may contribute to explain the intention-action relationship (Goethner et al., 2012; Kautonen et al., 2013; 2015).

3.5. Summary

Entrepreneurship is a process of venture creation. It involves time, effort, decisions, coping, and resources to create value and achieve entrepreneurs' aspirations. Individuals pass through several action phases – these are pre-action, pre-decision, action and post-action.

Entrepreneurship is important for economic and societal development. It enhances creativity, innovation, and services. In order to foster the advantages of entrepreneurship, researchers often predict entrepreneurial behaviour using entrepreneurial intention; this is the dominant predictor of entrepreneurial behaviour in entrepreneurship studies. However, many people who formulate entrepreneurial intention fail to translate their intention into action. This concern is crucial as it can discourage the fruitful outcomes of entrepreneurial activity and potential entrepreneurs.

The recent studies about the entrepreneurial intention-action link are scarce and lead to calls for investigating factors other than entrepreneurial intention alone. This study explores other

factors that explain the intention-action gap. The next chapter suggests another predictor of entrepreneurial behaviour– namely, self-regulation.

Chapter Four: The Role of Self-Regulation in Bridging the Intention-Action Gap

Having looked at the importance of entrepreneurship, the need to address the entrepreneurial intention-action gap, and the inadequacy of intention to predict action, this chapter investigates factors other than intention that can contribute to bridge the intention-action gap. It starts by highlighting possible causes of the entrepreneurial intention-action gap. Next, it highlights the role of self-regulation and identifies research hypotheses. Finally, it explains how the research model is developed.

4.1. Causes of the Intention-Action Gap

The concern of the inability to translate entrepreneurial intention into action might raise the question of entrepreneurial activity *promoters* and *inhibitors*. As a basic step to explore the potential reasons for entrepreneurial intention-action gap, it is crucial to understand the general inhibitors of entrepreneurship behaviour. The general inhibitors of behaviour can provide a global picture about main directions to address the intention-action gap problem. Thus, these highlight relevant theories and concepts which might indicate the possibility of particular inhibitors for entrepreneurial activity and highlight some of the possible solutions for such inconsistency.

According to the social cognitive theory, there is “reciprocal causation” (Bandura, 2001, p.14) among cognition, behaviour, and environment. The theory explains human behaviour in terms of triadic reciprocal causation among behaviour, cognitive and other personal factors, and environmental events (Bandura, 1986; 2001; Wood & Bandura, 1989) as represented in Figure 5.

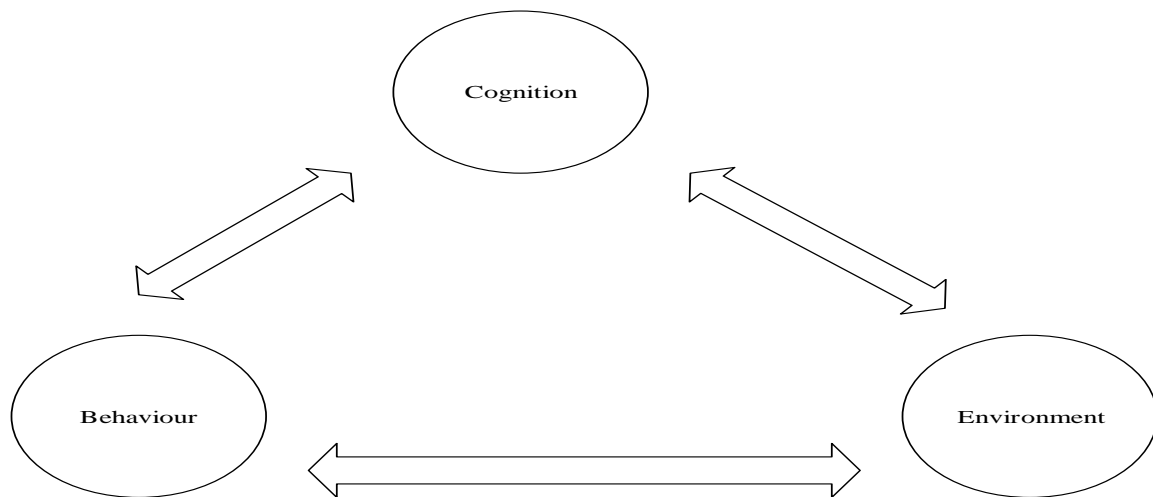


Figure 5 Influence of Cognition and Environment on Behaviour

Source: Wood and Bandura (1989, p.362)

These reciprocal relationships indicate that all factors of environment, cognition, and behaviour are operating and interacting to influence each other. The cognition factor includes “cognitive frameworks through which individuals interpret information” (Stenholm et al., 2013, p. 181). This indicates that cognition influences behaviour in either a positive or negative way (Kaze´n et al., 2008; Wieber & Gollwitzer, 2015). The environmental factor is about cultural values where unsupportive culture might inhibit behaviour (Inglehart, 2008; Uhlaner et al., 2002).

As far as entrepreneurship behaviour is concerned, the cognition factor reflects how people think and interpret information about entrepreneurship. The cultural factor indicates how values and common practice look at entrepreneurship which might influence entrepreneurial activity (Tomlinson, 2007; Skoko, 2011; Hamid, 2012). Thus, the implicit concepts, beliefs and ways of thinking about entrepreneurship could inhibit entrepreneurial activity (Krueger et al., 2000).

The influence of cultural values is supported by the norm theory. According to the norm theory, people tend to choose alternatives that match the norm. Their decisions often overstate the expected loss of selecting a non-normative option. Consequently, they prefer to follow norms and maintain the status quo (Holland et al., 2013). The social cognitive theory indicates there is interplay between culture and cognition; thus, it is expected that cultural values influence the ways people think and interpret the world around them. Reference groups, beliefs and traditions can influence people's decisions and behaviours; people often think that doing something different might result in loss. Hence, they tend to prefer inaction or follow others' actions to avoid such loss. This might cause an inability to take action and therefore inhibit a particular behaviour (Bandura, 2001; Uhlaner et al., 2002; Holland et al., 2013).

In the case of entrepreneurship, cultural values and beliefs might act as inhibitors for entrepreneurial activity (Inglehart, 2008; Uhlaner et al., 2002; Holtschlag, 2013). A study conducted by Uhlaner and Thurik (2006) confirmed that cultural values influence entrepreneurial activity at national level. Another study by Morales and Holtschlag (2013) confirmed that cultural values influence entrepreneurial activity at individual level.

Consequently, there are two main possible inhibitors for entrepreneurial action – namely, cognition and cultural values. Hence, the next sections highlight each factor to explore the main reasons for the entrepreneurial intention-action gap.

4.2. Cognitive Factors

An exploration of potential reasons for the existence of the entrepreneurial intention-action gap indicates that cognition can be one of the inhibitors of entrepreneurial activity. Lazarus and Folkman (1984) argued that interaction between people and environment is full of stimuli and stressors in day-to-day events. In comparable environments, different outcomes pointed

to personal differences. Kaze'n et al. (2008) argued that human differences in intention formulation, maintenance, and initiation stimulate the need for understanding the cognitive processes that underlie such variations.

Hence, it is crucial to go a step further and explore the cognitive process from formulating entrepreneurial intention to initiating action. The following sections explore the inhibitors we expect to find underlying the process of intention-action.

4.2.1. Cognitive Process of Action Phases

According to the Theory of Trying (TT), action is a goal-directed behaviour where a series of attempts is necessary to realise goals (Bagozzi & Warshaw, 1990; Bagozzi, 1992; Brannback et al., 2007). It might involve going through stages rather than just achieving a single end. Consequently, goal achievers strive and persist through these stages while others give up at the early stages.

Heckhausen (1987, 1991) introduced the Rubicon model which postulates that action encompasses two main processes –*goal setting* and *goal striving*. Goal setting involves motivations which encourage individuals to set particular goals. However, goal striving involves volitions where individuals regulate their behaviours to achieve the chosen goal. The Rubicon model consists of four main action phases - pre-decision, pre-action, action, and post-action. It identified a clear distinction between motivation and volition. The phases of pre-decision and post-action are motivational whereas the phases of pre-action and action are volitional. Gollwitzer (1990) further simplified these terms into deliberating, planning, acting, and evaluating (Gollwitzer, 1990, 1999, 2003, 2012; Heckhausen, 1991; Spiess & Wittmann, 1999; Gollwitzer & Sheeran, 2006). The achievement of a particular goal depends on the successful navigation from pre-decision to pre-action to action phases. The Rubicon model of action phases is given in Figure 6 (Tasks) and Figure 7 (Process).

Motivation	Volition		Motivation
Pre-decisional	Pre-actional	Actional	Post-actional
Deliberating	Planning	Acting	Evaluating

Figure 6 Rubicon Model of Action Phases (Tasks)

Source: Spiess and Wittmann (1999, p.893)

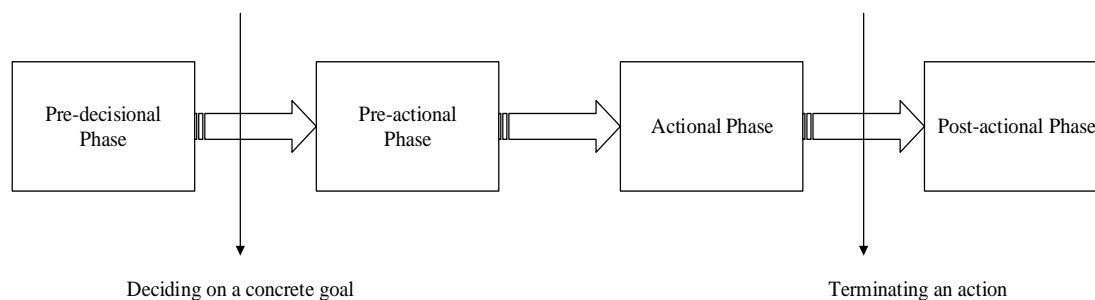


Figure 7 Rubicon Model of Action Phase (Process)

Source: Heiss et al. (2010, p.457)

The *pre-decision phase* is the stage where people have many wishes and needs that exceed their ability to achieve them (Gollwitzer & Sheeran, 2006). Thus, they perform even-handed evaluation about alternatives pros and cons (Armor & Taylor, 2003). This stage is concluded by taking decisions through the forming of goal intention and commitment (ILouga, 2014). The *pre-action phase* is the stage where people aim to initiate the chosen goal successfully (Gollwitzer & Sheeran, 2006). Hence, they tend to promote their chosen goal from intention (Achtziger et al., 2008) to the position of execution (ILouga, 2014). The *action* and *post-action phases* are about realising actions and evaluating goal accomplishment, respectively (ILouga, 2014).

Nevertheless, people tend to encounter difficulties at each action phase (Gollwitzer, 1993). As far as the pre-decision phase is concerned, individuals might face difficulties of regulating many wishes and needs before deciding on an alternative (Kuhl, 1985; Kuhl & Beckmann,

1985; Gollwitzer, 1993, 1999; Kuhl and Fuhrmann, 1998). As far as the pre-action phase is concerned, people are confronted with problems of initiating the chosen alternative such as competing desires and social pressure. Hence, they need to regulate and control their thoughts and actions to achieve their desires (Kuhl, 1985; Kuhl & Beckmann, 1985; Gollwitzer, 1990, 1993, 1999; Kuhl and Fuhrmann, 1998).

Having looked at the need to regulate thoughts and actions, the following section explains the self-regulation models.

4.2.2. Self-Regulation Models

Self-regulation refers to processes through which certain behaviour takes place (Rasmussen et al., 2006). Bryant (2009) defines self-regulation as process of working toward achieving goals. It originates from within a person's aims to adjust behaviours to achieve a purpose (Carver & Scheier, 2011). Thus, it reflects how the self alters its response to achieve desirable goals (Baumeister et al., 2007).

Goals are essential factor in performing behaviours (Mann et al., 2013). In fact, some articulate that human behaviours are mainly "organized around goals" where goals drive behaviours and provide meaning to individuals' lives (Rasmussen et al., 2006, p. 1722). Carver and Scheier (2011) believe that behaviour is a continuous process towards the achievement of a goal; however, goals are meaningless without actions, according to Rasmussen et al. (2006). Looking at self-regulation as a process that links people's goals with actions, Mann et al. (2013, p. 488) asserted that self-regulation is "an umbrella term used to describe the various processes by which people pursue and attain goals". In other words, self-regulation enables people to convert their desires into reality (Rasmussen et al., 2006).

Self-regulation consists of two main components that explain the process of goal pursuit; these are monitoring and operating (Koole et al., 2011). The monitoring process entails comparing individuals' present conditions with the desired goals. The operating system involves reducing the discrepancy between current condition and goals (Carver & Scheier, 1982, 1990, 2011; Koole et al., 2011; Mann et al., 2013). Finkel and Fitzsimons (2011) argued that goal monitoring reflects processes of evaluating goal achievement whereas goal operation refers to processes of changing thoughts and behaviours to pursue the chosen goal. Consequently, it is asserted that both terms, 'goal pursuit' and 'self-regulation', can be used in an interchangeable manner (Finkel & Fitzsimons, 2011).

In this sense, the present research adopts *control theory* that provides a model of self-regulation to analyse human behaviours (Carver & Scheier, 1982, 1990; Rasmussen et al., 2006). The control theory (model of self-regulation) explains how people self-regulate their behaviours to reduce the discrepancy between their intention and actions (Carver & Scheier, 1990). The model consists of four units – goal, input function, output function, and comparator – as given in Figure 8.

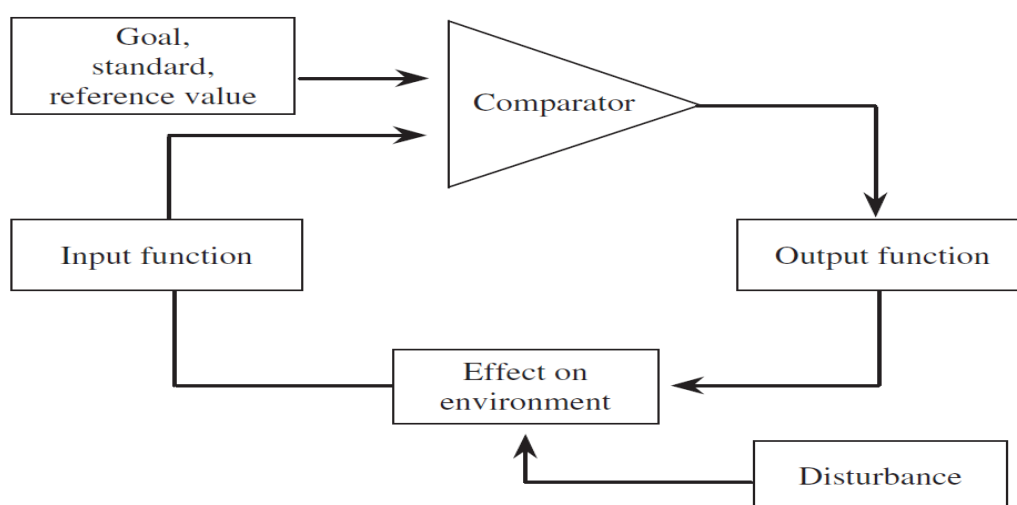


Figure 8 The Model of Self-Regulation of Actions

Source : Rasmussen et al. (2006, p.1723)

As a person formulates a goal, they tend to compare it with the present condition (input function). The comparison is performed through a mechanism called a comparator. Hence, individuals use their goal as the standard or reference value to measure their accomplishment. This refers to the monitoring component of self-regulation (Koole et al., 2011). If the result of the comparison shows no difference between goal and present condition, this indicates that the goal has been fulfilled and no action is to be taken (output function). However, if there is a discrepancy between the current situation (input function) and the goal, then behaviour is to be adjusted (output function) to reduce such discrepancy (Carver & Scheier, 1990). This refers to the aims of the operating system to reduce discrepancy between goal and action (Koole et al., 2011). The action that needs to be taken can change the current situation (input function) through the environment. In turn, the new situation (input function) is compared with the goal to evaluate the discrepancy; hence, this process is called the “discrepancy reducing feedback process” (Carver & Scheier, 1998, p. 29) that aims to bridge the gap between goals and actions (Carver & Scheier, 1982, 1990, 1998, 2011; Mann et al., 2013).

The self-regulation model (Figure 8) explained up to this point adopts self-regulation of actions. Thus, it addresses where the individual should act to reduce discrepancy between goals and current condition. However, adversities may interrupt people’s progress in pursuit of their goals. These adversities include negative emotions such as anxiety and frustration which need to be regulated (Carver & Scheier, 1990, 1998). Emotions represent thoughts and feelings through which people react to events (Koole et al., 2011).

It is argued that regulating feelings is also following the feedback process (Carver & Scheier, 1990, 1998). Hence, Carver and Scheier (1990) extended the discrepancy-reducing feedback process by a second feedback control process that regulates affect. It postulates that during

the discrepancy reduction process (goal pursuit), people often encounter difficulties such as lack of skills and resources. These obstacles induce negative emotions such as frustration and anxiety. Hence, they may persist or give up their goals and aspirations depending on two main assessments; these are outcome expectations and confidence. Favourable outcome expectancy induces positive feelings and confidence and leads to renewed effort in goal pursuit. Conversely, unfavourable outcome expectancy causes negative feelings and doubt and leads to disengagement from attempt (Carver & Scheier, 1990, 1998; Rasmussen et al., 2006). This process is given in Figure 9.

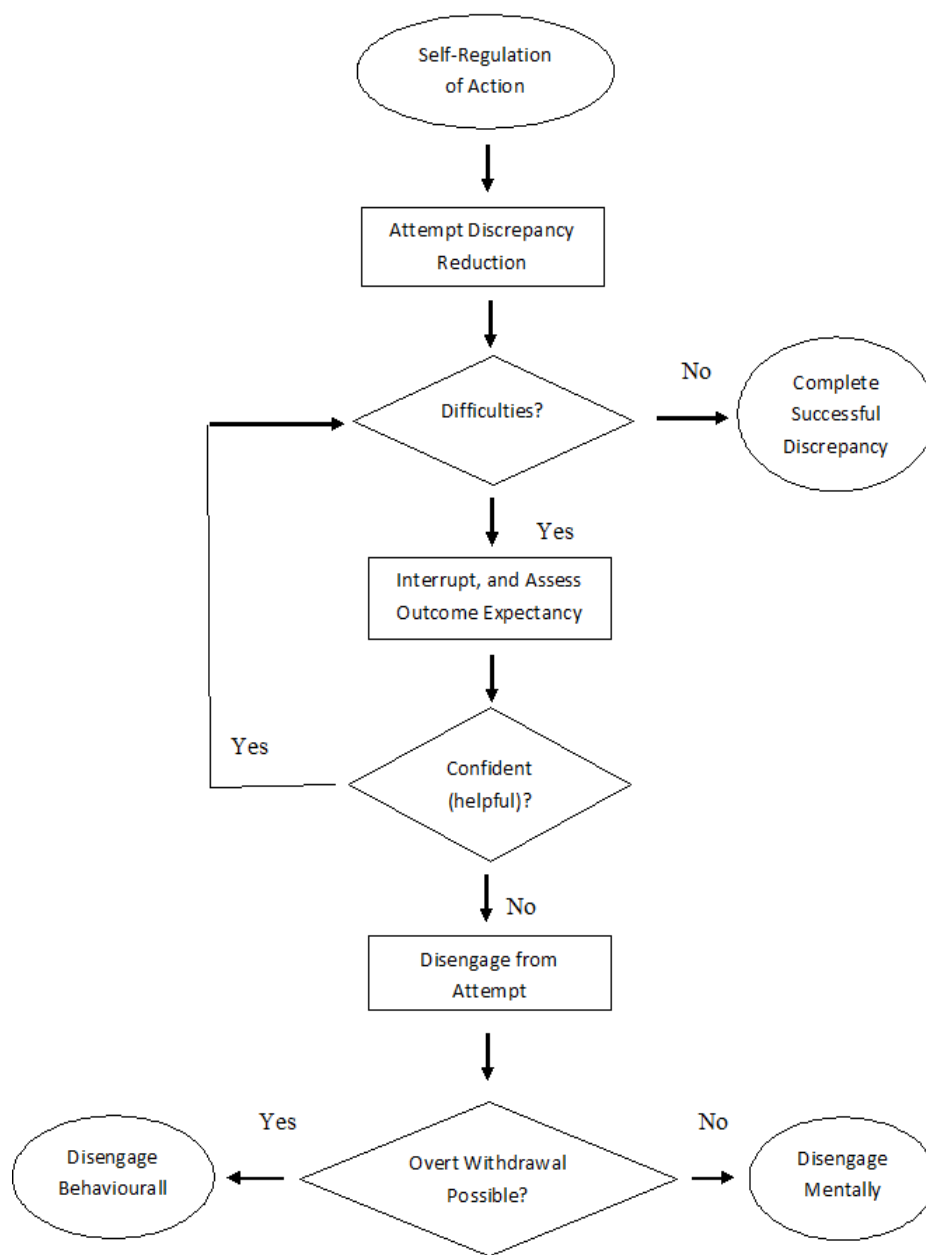


Figure 9 The Model of Self-Regulation of Emotions

Source: Carver and Scheier (1990, p.22)

In summary, this study builds on two models of self-regulation; the models of *self-regulation of actions* and the *self-regulation of emotions*. While the former deals with difficulties of taking the necessary actions to pursue goals, the latter deals with adversities of negative emotions that people might encounter during goal striving. Both models are loop processes where managing difficulties is continuous until the gap between goals and present condition

is diminished and hence the goal is achieved. These processes demonstrate the crucial role of self-regulation in bridging the intention-action gap.

4.2.3. Self-Regulation as the Most Proximal Predictor of Action

Entrepreneurship is a complex phenomenon (Noorderhaven et al., 2004) which requires self-regulation (Frese, 2009). Thus, self-regulation influences new venture creation (Frese, 2009), and subsequently enables people to maintain their intentions until achievement (Wieber & Gollwitzer, 2015). Consequently, people who adopt the self-regulation process are able to perform various functions as described by Kuhl and Fuhrmann:

‘They moderately use conscious monitoring of their intentions; they plan specific actions and initiate the planned behaviour at the right times and in suitable situations. They are implicitly able to control their attention and inhibit disturbing impulses in order to stay with a difficult task’ (1998, p.26).

This indicates that individual variations can play a vital role in applying self-regulation processes (Kaze´n et al., 2008). Gollwitzer and Sheeran (2006, p.86) emphasised the roles of self-regulation in bridging the intention-action gap by articulating that

‘accumulated researches indicate that there is a substantial gap between people’s goal intentions and their goal achievement. This is because forming a goal intention does not prepare people sufficiently for dealing with self-regulatory problems in initiating, maintaining, disengaging from, or overextending oneself in goal striving’.

Further, it is useful to employ self-regulatory strategies to enhance goal enactment of goal directed behaviours (Gollwitzer, 1993; Leary et al., 2006).

Although the intention of the study is to bridge the intention-action gap, the study focuses on the relationship between entrepreneurial intention and self-regulation for two main reasons. First, the study is based on the *control theory* (the model of self-regulation) to explore the intention-action gap (Carver & Scheier, 1982, 1990; Rasmussen et al., 2006). In the model of self-regulation, the first step is to have a goal (intention) as the reference value. Next, the self-regulation process monitors this goal against present conditions and then operates to

reduce the gap until goal achievement. Thus, the self-regulation stage is more proximal to action than intention.

Second, this study is in line with the early self-regulatory process introduced by Kuhl and Beckmann (1985) which postulates that self-regulation leads intentions to action. The process states that people tend to store their wishes, norms, expectations, values, and intention into their long-term memory in the form of action-related structures. As soon as there is a match with a currently encoded situation, they activate these action-related structures in intentional format. However, intentions will progress to working memory only in case of commitment; otherwise, they will remain in the long-term memory. The formulated goal intention with commitment normally encounters varying levels of difficulty to enact. In case of easy goals, the enactive structures will be accessed and enacted directly. However, in the case of difficult goals, people have to confront several challenges; namely, competing tendencies, social pressure, and state orientation. In order to overcome these challenges, people need to access and use self-regulatory strategies. Yet, there is another condition –namely, self-efficacy. In case of high self-efficacy, they will access self-regulatory strategies to deal with problems of action enactment. As they master the difficulties, they progress to action initiation. Otherwise, they either retry or modify intention. This process further demonstrates that self-regulation is more proximal to action than intention. The self-regulatory process is given in Figure 10.

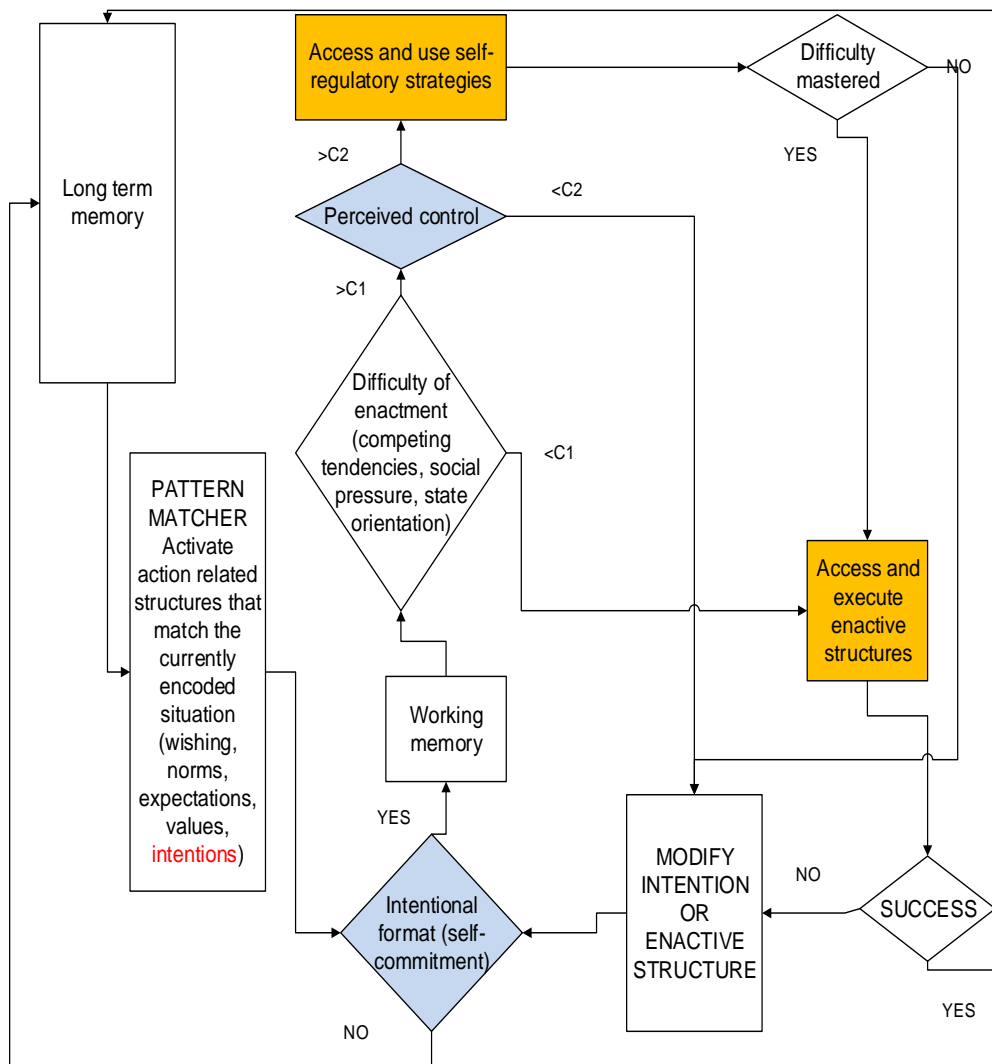


Figure 10 Self-Regulatory Process

Source: Kuhl and Beckmann (1985, p.105)

Consequently, the present research follows the argument that self-regulation can offer more proximal prediction of behaviour compared to just intention (Orbell, 2003; Sniehotta et al., 2005). Orbell (2003) conducted a longitudinal study about the role of self-regulation in enhancing studying behaviour. The study revealed that the intention model of TPB was capable of predicting 28% of studying behaviour. However, adding volitional capacity of self-regulation enhanced the prediction by 10-18%. The study concluded that self-regulation can provide more proximal prediction of behaviour than intentions and perceived behaviour control. Further, another study about bridging the intention-action gap by Sniehotta et al.

(2005) supported the results of Orbell (2003) and concluded that self-regulation is a volitional process which can act as the most proximal predictor of action. In fact, a recent study in the entrepreneurship context suggested the “hierarchy model of volition” which postulates that people progress in successive order from being intenders to potential entrepreneurs to active entrepreneurs (Hikkerova et al., 2016). This sequence is equivalent to mobilising their volitional skills through self-motivation, self-regulation, and proactivity. The hierarchy model of volition is given in Figure 11.

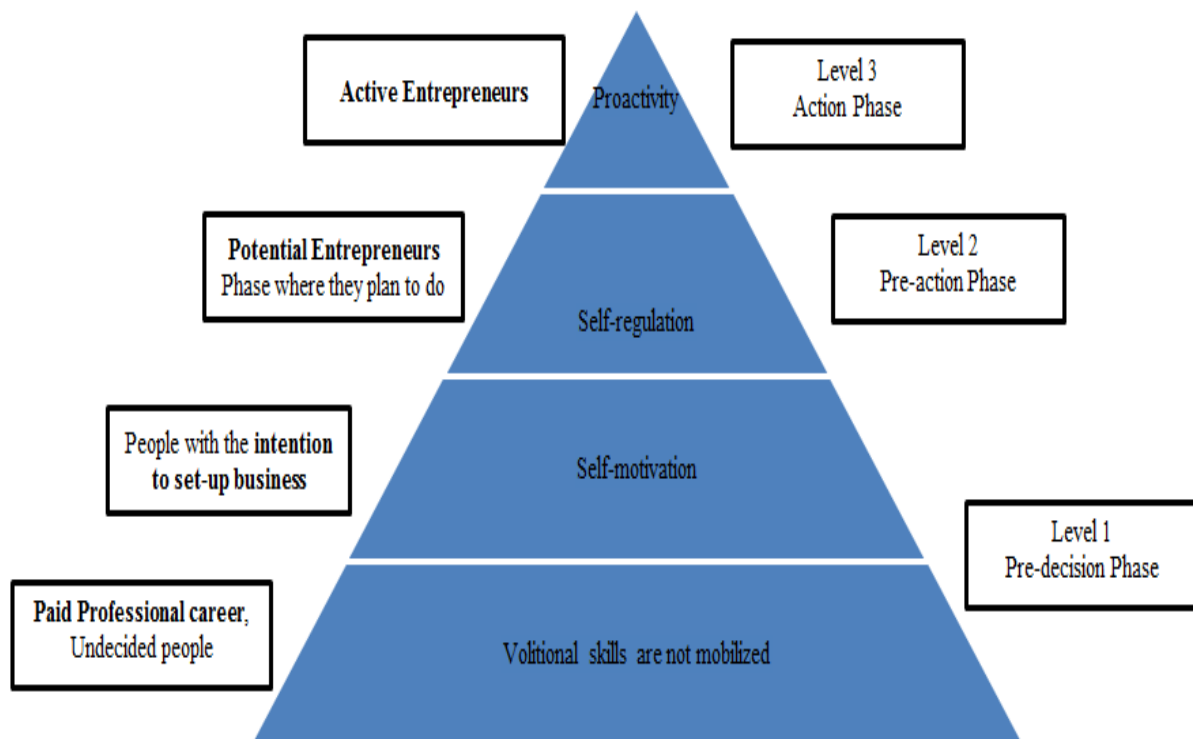


Figure 11 The Hierarchy Model of Volition

Source: Hikkerova et al. (2016, p. 1872)

Consequently, the present research adopts self-regulation as a more proximal predictor of entrepreneurial behaviour when used with intention as given in Figure 12.

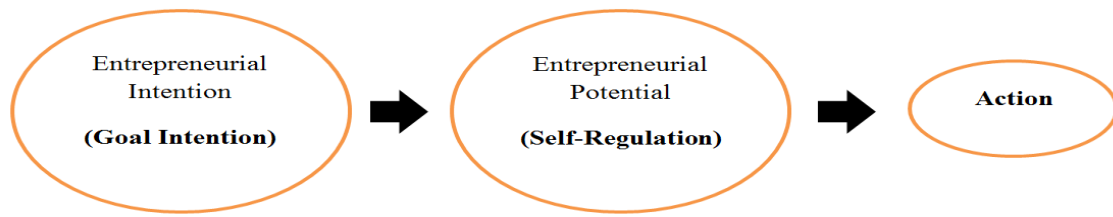


Figure 12 Self-Regulation and Action

Source: the author

A further justification for the use of self-regulation as a theoretical concept within this research is that the self-regulation process is in accordance with the notion that human behaviour follows the feedback control loop principle that originates from the works of several psychology scholars (MacKay, 1963; Powers, 1973; Kuhl, 1984; Rasmussen et al., 2006). The feedback control loop principle enables people to set goals as reference and then monitor discrepancies until goal achievement (Carver & Scheier, 1990; Scheier et al., 1994; Rasmussen et al., 2006). Markus and Wurf (1987) supported the discrepancy-reducing process by arguing that it encourages the monitoring of success and failure, and enables people to increase performance. Some apply this process to understand how people regulate their actions and thoughts towards life conditions (Rasmussen et al., 2006). The concept of discrepancy reducing between goals and actions is in accordance with the main research aims to bridge the intention-action gap in the entrepreneurship context. Consequently, this study applies two main feedback control loop models – namely, the model of self-regulation of actions (Figure 8) and the model of self-regulation of emotions (Figure 9).

Opponents of this principle argued that people who can regulate their behaviours and thoughts should be more focused on actions and environment rather than on themselves (Wicklund, 1986). However, there is great consensus that both goals and values are crucial components of the self where corrective adjustments take place (Austin & Vancouver, 1996; Bandura, 1997). Further, some articulated that this principle is an engineering notion and

does not reflect human behaviour. However, some argue that feedback control has roots in many fields including physical and mental systems where movement is recycled (Rosenbaum et al., 2001). Another argument is that the feedback loop process is only applicable in the case of static goals with ending points. Conversely, Beer (1995) found that the feedback control process is applicable among moving goals. Considering these perspectives, this study uses self-regulation as a theoretical concept to explain how people bridge the discrepancy between their intentions and actions.

Literature suggested, however, other possible candidates for bridging the intention-action gap including prior experience and goal adjustment (Bruderl et al., 1992; Cooper et al., 1995; Minniti & Bygrave, 1999; Shane, 2000; Hmieleski and Baron, 2008; Uy et al., 2013).

As far as prior experience is concerned, scholars contend that prior experience in entrepreneurship can influence outcomes (e.g., Cooper et al., 1995; Minniti & Bygrave, 1999; Shane, 2000; Uy et al., 2013). It enhances the sense of control and effective coping (Hmieleski & Baron, 2008). Further, it influences the desired outcomes of survival and success (Bruderl et al., 1992). In fact, some advantages of prior entrepreneurial experience may include knowledge, skills, and decisions (Reuber & Fischer, 1999; Davidsson & Honig, 2003; Colombo & Grilli, 2005; Dew et al., 2009). However, prior entrepreneurial experience is not in line with the study target sample of non-entrepreneurs who never start a business. Hence, the present research suggested studying the sample of non-entrepreneurs with previous entrepreneurial experience as a future research direction.

As far as goal adjustment is concerned, as people pursue their goals and exert effort to address discrepancy between desires and the current situation, they might find that their goals are not attainable. Possible reasons include unrealistic goals or time constraints (Rasmussen et al., 2006). This can cause negative emotions such as depression, hopelessness, and low

commitment (Wrosch et al., 2003). Consequently, people can apply goal adjustment to disengage from unattainable goals and re-engage in alternative goals (Rasmussen et al., 2006). This approach is called “discrepancy-enlarging” or “anti-goals” (Carver & Scheier, 1998). However, with reference to Figure 10 on page 56, this study follows the self-regulatory process by Kuhl and Beckmann (1985, p.105) which states that people often give up their intentions in two main cases – namely, low self-efficacy and inability to master situation difficulties. The study model emphasised the importance of self-efficacy in the intention formulation stage and recommends ways to enhance it. The study model also tackles the difficult situations by considering factors that enable people to regulate their emotional difficulties. In other words, this study aims to suggest factors that enable people to overcome actions and emotional difficulties rather than give up their intentions. Consequently, the present research discards this approach because it is not in accordance with the study aim of discrepancy reducing rather than discrepancy enlarging.

Surprisingly, only a limited body of entrepreneurship research has examined the influence of volition on the intention-action relationship in the starting-up business context (Schlaegel & Koenig, 2014). Although these studies had acknowledged the existence of the intention-action gap in entrepreneurship, they did not tackle the concern empirically (Goethner et al., 2012; Kautonen et al., 2013; Kautonen et al., 2015). In other words, they did not inform entrepreneurship literature about when and why entrepreneurial goal intention converted into action (Van Gelderen et al., 2015). For example, Kautonen et al. (2015) asserted that a considerable intention-action gap continues to exist in the entrepreneurship domain. Hence, there is a need to predict entrepreneurial behaviour using factors other than entrepreneurial goal intention such as volition (Kautonen et al., 2015).

Van Gelderen et al. (2015) responded to this call and examined the moderating effect of volition on the link between entrepreneurial intention and action. This longitudinal study assumed that entrepreneurial goal intention is an insufficient predictor of entrepreneurial action. Hence, there is a need for an additional factor to deal with the difficulties of translating intention into action –namely, volition. The authors defined volition as “how individuals exercise willpower to obtain what they desire” (Van Gelderen et al., 2015, p. 655). The study applied constructs related to volition; namely, *self-control* and *action* emotions (doubt, fear, aversion). The former is about ability to adapt one’s willpower to confront adversities whereas the latter refers to action inhibitors. The aim of this study was to answer the question of when and why entrepreneurial intenders translate their intention into reality. Gelderen and colleagues (2015) concluded that self-control has a moderating effect on the intention-action relationship. Thus, people with high self-control are more likely to convert their entrepreneurial goal intention into action.

The study by Van Gelderen et al. (2015) extended intention research in the entrepreneurship context by confirming the crucial role of self-control (subset of self-regulation) in translating entrepreneurial goal intention into action. However, it did not offer self-regulation determinants that may be helpful in the entrepreneurship context. In other words, it did not explain how entrepreneurial intenders formulate the required self-regulation. This study aims to fulfil this knowledge gap. Hence, the main research question for this study is:

What are the factors that bridge the entrepreneurial intention-action gap?

Having looked at the action phases, the role of self-regulation in bridging the intention-action gap, and the main research question, the next step is to answer the question.

Entrepreneurship is goal-directed behaviour (Brannback et al., 2007) where goals are a necessary input for the self-regulation function of monitoring (Carver & Scheier, 1990;

Rasmussen et al., 2006). Goals are necessary to start the process of monitoring by comparing them against present conditions. This process continues until the gap is diminished. Hence, the study expects that setting goals is one of the self-regulation determinants that contribute to bridging the entrepreneurial intention-action gap. Thus, the first research question is:

Research Question 1: What are the determinants of entrepreneurial goal intention?

This question is relevant to the main research question mentioned above about the factors that bridge the entrepreneurial intention-action gap. In order to answer this question, the action phase relevant to goal setting is explored; namely, the pre-decision phase.

4.2.4. Goal Intention Determinants

At the pre-decision phase, people tend to have many needs, wishes, desires, and aspirations. They often deliberate about different alternatives and weigh up the pros and cons of their possible choices. At this stage, they are mainly in the motivation state (Figure 6). However, they are confronted with the difficulty of making decisions among a range of alternatives, so they need to regulate their motivations and actions to reach a decision. Thus, they require self-regulation to control thoughts, actions, and competing desires (Kuhl, 1985; Gollwitzer, 1990, 1993, 1999).

According to the social cognitive theory, people are proactive rather than just reactive; thus, they can motivate and guide themselves towards their desires rather than waiting for discrepancies to emerge (Bandura & Locke, 2003). Humans can create their own unique insights and visions about the future; thus, they set themselves challenging goals and performance standards (Locke & Latham, 2006). A goal is a performance level that people aim to achieve at a certain period or stage. Hence, it refers to the standard that an individual uses to evaluate their performance (Locke & Latham, 2006, p. 332). Wieber et al. (2015, p.2) defined goals as “mental representations of desired end-states.”

The social cognitive theory argues that self-regulation of motivation and action works through a dual control system. This includes two main systems – the *proactive discrepancy production system* and the *reactive discrepancy reduction system* (Bandura and Locke, 2003). In this system, the first step of goal setting is called the pro-active discrepancy production system. It is proactive because people are motivated by their expected achievement rather than impeded by current shortfalls. Thus, to achieve satisfaction, they take a step in advance and set their goal. In addition, this system is described as discrepancy production because it generates a discrepancy between status and desired status. This step enables them to motivate themselves and control their action towards goal attainment. Later, as they strive towards their goal, they encounter discrepancy by comparing their current performance with the desired goal. Hence, they need to react and reduce that discrepancy. Thus, this stage is referred to as the reactive discrepancy reduction system (Bandura & Locke, 2003).

Goal setting is the prime motive of action where people are self-motivated by goal attainment. However, as they pursue their challenging goal, they start getting negative feedbacks where they need to reduce discrepancies. This is not the prime motive of action as people are often motivated by values associated with their goals rather than by negative feedback of missing their goal. The dissatisfaction about discrepancy between current performance and performance standard of the goal further motivates people to improve their action. As individuals achieve their goal they might set themselves another challenging goal and go through the process of creating and reducing discrepancies until goal attainment (Locke & Latham, 2006).

Gollwitzer et al. (2015) argued that people can regulate their behaviours by setting goals and working to achieve them. Goals setting enhances focus, purpose, satisfaction, performance, accomplishment, and persistence. They are a source of self-motivation, determination, and

concentration which lead our pursuits (Kuhl, 1985). Carver and Scheier (1982, 1990) asserted that the first step in the model of self-regulation is setting a goal and then comparing the goal with current situation to bridge any discrepancy. The formulated goal at the pre-decision phase refers to goal intention; thus, the pre-decision phase is characterised by the task of formulating goal intention (Gollwitzer, 1993). This leads to the hypothesis that entrepreneurial goal intention is related to self-regulation:

Hypothesis 1: Entrepreneurial goal intention is positively related to self-regulation.

Gollwitzer and Brandstatter (1997) argued that, however, goal achievement depends on the way the goal is formulated, and regulating subsequent activities. The role of desirability and feasibility as predictors of entrepreneurial intention is emphasised in the entrepreneurial event model (EEM) (Shapero & Sokol, 1982). Further, Krueger et al. (2000) found that desirability and feasibility are good predictors of entrepreneurial intention. According to Alfonso and Cuevas (2012), entrepreneurial *desirability* is defined as the extent of attractiveness which encourages an individual to start a business whereas *feasibility* reflects the individual's insight about their ability to start a business.

According to Ilouga et al. (2014), desirability and feasibility are essential at the pre-decisional stage to form goal intention and develop commitment towards attainment. Wieber et al. (2015) emphasised the role of desirability and feasibility in formulating firm goals with high commitment. Armor and Taylor (2003) asserted that people's assessment of tasks and their ability to perform tasks influences performance. Hence, according to Ilouga et al. (2017, p. 720), at the pre-decision phase, desirability and feasibility "transform[s] intention into a target goal intention leading individual to be committed to the implementation of specific actions to achieve the pursued objective". Thus, commitment is explained by desirability and feasibility (Ilouga et al., 2014). This is consistent with the self-regulatory process (Kuhl,

1985; 1991) that emphasised the role of commitment to transform intention from long-term memory to working memory. As such we need to examine desirability and feasibility in greater depth, in the context of achieving the desired goal (Armor & Taylor, 2003; Fujita et al., 2007; Wieber & Gollwitzer, 2015).

This leads to the following hypotheses that at the pre-decision phase, desirability and feasibility are determinants of goal intention.

Hypothesis 2: Desirability is directly and positively related to goal intention.

Hypothesis 3: Feasibility is directly and positively related to goal intention.

Another factor that leads to concrete goal intention is self-efficacy. Self-efficacy refers to a person's belief in their capability to perform tasks required for achievement (Bandura, 1997; McGee et al., 2009; Bullough et al., 2014). It is argued that there are two cognition requirements which people need to facilitate goal achievement; these are *commitment* and *self-efficacy* (Kuhl, 1985, Gollwitzer, 1993). In a meta-analysis about determinants of entrepreneurial intent, Schlaegel and Koenig (2014) found that the combination of desirability, feasibility, and entrepreneurial self-efficacy has been applied to determine entrepreneurial goal intention (Wang et al., 2002; Shook & Bratianu, 2010; Byabashaijar & Katono, 2011; Solesvik et al., 2012).

The notion of linking high self-efficacy with goals is further supported by the self-regulatory process (Kuhl, 1985; 1991), coping theory (Lazarus & Folkman, 1984), and the model of self-regulation of emotions (Carver & Scheier, 1990). These theories are consistent in arguing that people who demonstrate high self-efficacy with their goals are able to overcome difficulties and pursue their goals. According to Ajzen and Madden (1986), people tend to act on behaviour where they believe that they have a certain level of control, are able to perform it successfully,

and they think it is desirable. The influences of self-efficacy and goal setting are confirmed by Bandura and Locke (2003), who stated that there is compelling evidence that goal setting along with self-efficacy can enhance action enactment. Thus, people with high self-efficacy are more likely to take action (Bandura, 1997).

As far as the entrepreneurship context is concerned, entrepreneurial self-efficacy (ESE) refers to the degree to which individuals believe they are capable to perform the tasks required to start a business (Zah et al., 2005; McGee et al., 2009; Bullough et al., 2014). The effect of entrepreneurial self-efficacy is salient as Bandura, (2003, p. 97) argued that “it is those of high perceived self-efficacy who are most likely to start new business ventures” because they have established clear vision, challenging goals, and concrete belief in their ability to accomplish them.

This leads to the hypothesis that at the pre-decision phase, entrepreneurial self-efficacy influences goal intention.

H4: Entrepreneurial self-efficacy increases goal intention.

In summary, at the pre-decision phase, people tend to have many wishes and needs. Hence, they need to regulate these motivations by formulating goal intention. Although goal setting is a useful self-regulation determinant, commitment and entrepreneurial self-efficacy are prerequisites for concrete goal intention. Consequently, this study expects that goal intention is a self-regulation determinant at the pre-decision phase which is formulated by desirability, feasibility, and entrepreneurial self-efficacy.

The pre-decision phase is terminated with formulating goal intention (Gollwitzer, 1999). This situation may vary among different people. Some individuals might formulate a concrete goal with desirability, feasibility, and entrepreneurial self-efficacy. However, others might

formulate weak goal intention by lacking desirability, feasibility, and entrepreneurial self-efficacy. Hence, the study expects that the intention-action gap might exist when people could not establish concrete goals with desirability, feasibility, and entrepreneurial self-efficacy – at the pre-decision phase. Having looked at the self-regulation determinant of goal setting at the pre-decision phase, the main concern now is the ability to apply this mechanism to bridge the intention-action gap. This concern is addressed by Leary et al. (2006) who argued that one of the means to foster self-regulation is through the mind-set. Brannback et al. (2007) asserted that to facilitate goal setting, it is crucial to activate the relevant cognitive procedure; that is *mind-sets* (Gollwitzer, 1990; 2003). The notion of mind-set is discussed in the following section.

4.2.5. Deliberative Mind-set

Gollwitzer et al. (1990) argued that each action phase is accompanied by a distinct mind-set. The pre-decision phase is associated with the *deliberative* mind-set. Deliberation about potential actions creates a deliberative mind-set (Gollwitzer, 2011; 2003). The deliberative mind-set refers to “the cognitive and motivational states associated with pre-decisional frame of mind” (Armor & Taylor, 2003, p.86). It is characterised as “open mindedness” due to the need of tremendous information processing to handle the required depth of analysis (Gollwitzer, 2003; Fujita et al., 2007). The main task of a deliberative mind-set is to reach a decision about wants, needs, and wishes (Gollwitzer, 2003). It facilitates the task of formulating intention after careful analysis and appraisal of alternatives leading to commitment about implementing an action (Ilouga et al., 2014). Thus, it facilitates the task of the pre-decisional phase – namely, setting concrete goal intention (Gollwitzer, 2011; 2003). Consequently, the suggested determinants of goal intention at the pre-decision phase (deliberative mind-set) are given in Table 3.

Table 3 Deliberative Mind-set

Action Phase	Determinants of Goal Intention
Pre-action	Desirability
	Feasibility
	Entrepreneurial Self-Efficacy

In this sense, this study suggests the conceptual framework as an entrepreneurial deliberative mind-set (Figure 13). The model of self-regulation indicates that the self-regulation process has two components; these are monitoring and operating. Monitoring uses goals as reference to monitor the gap between intention and action. This component of the deliberative mind-set supplies the self-regulation process with the goals required to start the monitor function. Consequently, this conceptual framework represents the first determinant of self-regulation; namely, goals.

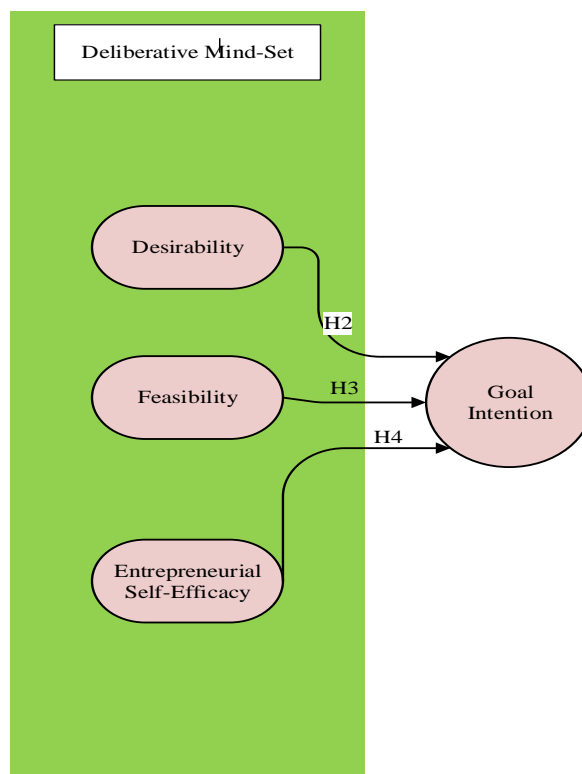


Figure 13 Deliberative Mind-Set Model

As far as entrepreneurship is concerned, however, it is argued that action is the only way to say that individual has an entrepreneurial mind-set (Brannback et al., 2007). The entrepreneurial mind-set refers to the cognitive processes of goal setting and goal striving that help entrepreneurs to take advantage of uncertainty (McGrath & MacMillan, 2000). It is a way of thinking about business that helps them to turn aspiration into reality (Ireland et al., 2003). Thus, activating a deliberative mind-set only at the pre-decision (goal setting) phase is insufficient to foster an entrepreneurial mind-set. Hence, the second research question is:

Research Question 2: What are the self-regulation determinants?

This question is relevant to the main research question mentioned about the factors that bridge the entrepreneurial intention-action gap. Having explored the pre-decision phase, the pre-action phase is discussed next.

4.2.6. Self-Regulation Determinants

As people proceed from the pre-decision phase to the pre-action phase, they move from motivational status into volitional status (Figure 6). Volition is the process of converting intention into action (Ilouga et al., 2014). Van Gelderen et al. (2015, p. 655) argued that volition refers to “how individuals exercise willpower to obtain what they desire”. Consequently, this study further expects that inhibitors at this action phase may play a crucial role in the entrepreneurial goal intention-action gap.

As people formulate intentions at the pre-decision phase, they tend to encounter self-regulatory problems which threaten goal achievement (Achtziger et al., 2008; Bayer et al., 2010). These hampering conditions include distractions, conflicting goals, unexpected barriers, fears, temptations, bad habits, and shortcomings (Gollwitzer and Brandstatter, 1997; Sheeran, 2002; Gollwitzer & Sheeran, 2006; Achtziger et al., 2008). To convert intention into action, it is crucial to resolve the implementation issues at the stages of initiating action and

striving. Thus, rather than advising people to stop formulating good intentions, they are required to make their intentions more effective. Hence, the application of self-regulation capacity to shield goals against unwanted effects is suggested (Van Hooft et al., 2005; Achziger et al., 2008; Wieber et al., 2010; Gollwitzer et al., 2011; Wieber et al., 2015).

There are several reasons behind difficulties at the pre-action phase. First, Gollwitzer (1999) argued that people may forget or do not know the required action for the required situations. Intention is about action to be taken in future; hence, it is stored in memory until it is activated and induces people to act. To execute postponed intention, people require two main stages; these are remembering when to carry out the postponed intention, and knowing what should be done to perform the postponed intention. Hence, in order to carry out their intentions, people need a self-regulatory mechanism to deal with such difficulties.

Second, Kuhl (2000; 2001) asserted that having many uncompleted intentions may cause lack of ability to perform actions. Personality systems interactions (PSI) theory explains this by suggesting that, as people have many intentions, they activate intention memory continuously with a high load of many unfulfilled intentions. This may lower the positive affect and result in an inability to carry out intentions. However, to manage the lower positive affect and carry out intentions, people need volitional competencies. This phenomenon is called the “intention superiority effect” (Goschke & Kuhl, 1993). Hence, there is a need for self-regulation to overcome this obstacle.

Third, Marsh et al. (2002) argued that people need three main processes to carry out intention successfully. These processes are *detecting the goal*, *retrieving the intention*, and *managing the intended activity* alongside other ongoing activities. Formulating goal intention is relevant to the first process of detecting the goal while formulating implementation intention is relevant to the process of retrieving intention. However, as individuals move to the stage of

carrying out the intention to meet a challenging goal, they tend to face difficulties such as distractions and social pressures. This is where people need to perform the third process to carry out intention successfully – managing the intended activity along other ongoing activities (Kuhl, 1985; Kuhl & Fuhrmann, 1998). Consequently, they need to regulate their thoughts and actions to cope with adversaries and strive towards action enactment.

Finally, the self-regulation model of actions (Figure 8) indicates that after performing the goal monitoring and detecting gap between intention and action, the next stage is operating. At the operating stage, people can take actions to bridge the discrepancy. This process can continue until the gap is diminished (Carver & Scheier, 1990). Thus, this study suggests actions to be taken to bridge the intention-action gap at this stage.

Having looked at problems of action enactment at the pre-action phase, next, the suggested self-regulation determinants at pre-action phase are examined in turn.

Implementation Intention as a Self-Regulation Determinant

As people formulate firm goal intention and progress from the pre-decision phase to the pre-action phase, they encounter various difficulties to initiate action (Gollwitzer, 1993, Kuhl, 2000; Carver & Scheier, 1990). Some of these difficulties include carrying out intention along with other ongoing activities and maintaining intention against disruption (Marsh, 2002; Bayer et al., 2010). Hence, they tend to forget to initiate the intended action or they do not know when to act and what must be done when opportunities arise (Gollwitzer, 1993, 1997, 1999; Gollwitzer and Sheeran, 2006; Achtziger et al., 2008).

Intention is about action to be taken in future; hence, it is stored in memory until it is activated and induces people to act. To execute postponed intention, people need to undergo two main stages: remembering when to carry out the postponed intention, and knowing what

must be done to perform the postponed intention. Hence, they need to regulate their thoughts and actions to remember when to act and what to do (Gollwitzer, 1993, 1997, 1999).

Gollwitzer (1993) suggested implementation intention as an effective self-regulatory strategy which can enhance action initiation and enactment (Van Hooft et al., 2005; Achtziger et al., 2008; Wieber et al., 2010; Gollwitzer et al., 2011; Wieber et al., 2015). Thus, furnishing goal intention with implementation intention can overcome the concerns of remembering and acting among postponed intentions (Gollwitzer, 2003, 2006). In other words, it is another intention level which reduces the problems of distractions and promotes goal intentions (Bayer et al., 2010; Gollwitzer et al., 2011; Quan, 2012; Van Gelderen et al., 2015). Thus, implementation intentions have several advantages over goal intentions only. First, implementation intention contributes to the effective initiation of goal intention. Second, implementation intention creates a strong link between a situation and response rather than linking a person with their desires. Third, implementation intention promotes goal intention by inducing a plan about initiating and executing the goal (Achtziger et al., 2008; Gollwitzer, 2011).

Implementation intention refers to planning when, where, and how the goal intentions are to be achieved (Wieber et al., 2015). Implementation intention can be distinguished from goal intention as the former holds that “I intend to initiate the goal-directed behaviour x when situation y is encountered!” while the latter holds that “I intend to achieve x!”. Stating if situation-then response or “I intend to initiate the goal-directed behaviour x when situation y is encountered!” activates two main psychological processes (Gollwitzer, 2011, p.142). The first associates with the if-component and the second associates with the then-component. As far as the if-component is concerned, specifying a critical situation forms mental representation and creates a heightened state of activation of this critical situation.

Consequently, the heightened state of activation increases accessibility to this critical situation. As people tend to be disturbed within other situational contexts, this accessibility facilitates their ability to detect, attend, and recall the critical situation (Gollwitzer, 1999; Sheeran et al., 2005; Gollwitzer & Sheeran, 2006; Achtziger et al., 2008; Bayer et al., 2010; Wieber et al., 2010; Gollwitzer et al., 2011; Wieber et al., 2015).

The then-component creates a strong mental link between a critical situation in the if-component and intended behaviour in the then-component. It is argued that this mental link shifts the action control from the individual to the environment (Gollwitzer, 1993). The situation presents with a heightened state of activation along with easy “cognitive accessibility”; hence, response is initiated immediately and without need for conscious action (Gollwitzer & Schaal, 1998). This mechanism leads a shifting of the action control from individuals to critical situations and increases the ability of the individuals to address the main drawback of goal intentions’ namely, action initiation (Bayer et al., 2010; Gollwitzer et al., 2011). In other words, the implementation of their goal intention is shifted from conscious control to critical situation control. Consequently, this automatic process is helpful to serve the goal intention attainment.

Automatic processes alone, however, are not a guarantee for goal attainment (Webb & Gollwitzer, 2005; Gollwitzer & Sheeran, 2006; Bayer et al., 2010; Wieber et al., 2015). To apply implementation intentions effectively and influence the rate of goal attainment, it is crucial to understand the prerequisites. The first prerequisite is strong commitment to formulate firm goal intention (Gollwitzer, 1999; Sheeran et al., 2005; Wieber et al., 2010). The formulated implementation intention affects goal attainment only when underpinned by strong goal intentions (Webb & Gollwitzer, 2005; Achtziger et al., 2008).

This implies that to secure the effectiveness of implementation intention, the deliberation of desirability and feasibility must yield strong goal intention. The second prerequisite is that this superordinate goal intention should be in the state of activation (Sheeran et al., 2005; Cohen et al., 2008; Wieber et al., 2010). The third prerequisite is the strong commitment to implementation intentions; namely, formulated plans (Achtziger, Bayer & Gollwitzer, 2009, Wieber, 2010). This is consistent with the commitment required for firm goal setting including desirability, feasibility, and entrepreneurial self-efficacy.

In summary, as people tend to store intention about planned action in their memory, the postponed intention needs to be retrieved at a certain point of time in the future. However, people might forget or become distracted by other ongoing activities. Hence, there is a need for self-regulation to facilitate retrieving and carrying out postponed intention. It is suggested that formulating an implementation intention of when and how to execute intended behaviour can help people to remember to initiate action. In other words, it can convert goal intention into implementation intention and action enactment. This leads to the hypotheses that implementation intention mediates the relationship between goal intention and self-regulation.

Hypothesis 5: Entrepreneurial goal intention is directly and positively related to implementation intention.

H6: Implementation intention is directly and positively related to self-regulation.

Having looked at implementation intention, we next look at suggested volitional competencies that regulate difficulties of action enactment at the pre-action phase.

Volition Competencies as determinants of Self-Regulation

As people progress from the pre-decision phase to the pre-action phase, they move from motivational status to volitional status (Figure 6). Volition is important in translating

entrepreneurial goal intention into action as it controls intentions and distractive impulses so that people can achieve their goals regardless of obstacles (Corno, 2004). However, it is common to see people who hold strong goal intention and motivation but who are unable to pursue their goal (Gollwitzer, 1993). Thus, although motivation processes help to bind goals, preferences, and decision to act among wishes, they are insufficient to explain how to protect intention from distractions when intending to implement actions. One of the justifications for that is a lack of crucial characteristics, such as volition or willingness (Ilouga et al., 2014). This is further supported by Kaze'n et al. (2008) stating that action enactment does not depend on activation of intentions. However, it may rely on an additional factor beyond intention activation, which is volition. Hale et al. (2003) asserted that people who can integrate motivation and volition are most likely to translate their intentions into action.

As far as entrepreneurship is concerned, it is argued that individuals may fail to initiate action even with strong intention due to lack of volition. Thus, lack of volitional competencies may lead to the intention-action gap which is one of the major limitations of the intention models (Gollwitzer, 1993; Norman & Sheeran, 2003; Quan, 2012; Van Gelderen et al., 2015). According to Simon et al. (2000), previous studies in the entrepreneurship context do not address volitional capacity. Krueger et al. (2000) articulated that there is a need to consider volitional skills when undertaking successful venture creation studies. Hence, there is a need for addressing volition in the entrepreneurship domain (Brännback et al., 2007; Kautonen et al., 2013).

The time lag between formulating entrepreneurial goal intention and initiating action is often long (Shook et al., 2003). Hence, people are subject to several conditions such as obstacles and distractions. These conditions can cause changes in preferences, emotions, and goals.

Hence, there is a need for volitional competencies to regulate goal intention and goal attainment (Kuhl and Fuhrmann, 1998; Gollwitzer, 1999; Marsh et al., 2002).

This is consistent with the self-regulation model for emotions (Figure 9) which postulates that after detecting discrepancy between intention and action, people might experience negative emotions such as anxiety and frustration. Hence, they need to regulate their emotions. The self-regulation at this stage depends on expectations. This study suggests volitional competencies to regulate negative emotions to bridge the intention-action gap. Next, these suggested volitional competencies are examined in turn.

Optimism

Although this section is about the pre-action phase, optimism often emerges from the pre-decision phase. Hence, a brief discussion about the pre-action phase can be useful to understand the influence of optimism on the intention-action link. At the pre-decision phase, people tend to deliberate about an alternative's desirability and feasibility (Ilouga et al., 2014; Alfonso & Cuevas, 2012). They evaluate their belief in themselves and their ability to perform such alternatives. Hence, they deliberate about desirability, feasibility, and self-efficacy before taking decisions (Cooper, 2012; Solesvik et al., 2012). According to Schwarzer (1998), at this stage, individuals tend to be realistic and critical by analysing and weighing up each alternative prior to making a decision. This approach often helps to formulate binding goals successfully. However, it is argued that excessive deliberation and analyses of options at this stage might cause pessimism; in other words, the more the individual deliberates about alternative pros and cons, the more likely he or she is to be pessimistic about the outcome.

Consequently, it is argued that pessimism and self-doubt can prevent people from taking decisions at all and make them avoid formulating intention whereas optimistic self-beliefs

facilitate goal setting (Schwarzer, 1998). Thus, people who are confident about their ability to perform the task experience feelings that they can exert more control over outcomes. This feeling of ability to control outcomes of an alternative enables optimistic people to formulate their goals and take decisions about choosing alternatives (Hatten, 1997; Baron, 1998). Thus, optimism may emerge from self-efficacy and control (Urbig & Menson, 2012).

Optimism refers to expecting good things to happen rather than bad things (Scheier & Carver, 1987; Urbig & Menson, 2012). According to Schwarzer (1998), in a conflict situation where individual needs to make a decision, the “realism window” is open. In other words, in difficult decisions, it is natural to be more realistic and less optimistic to cope with threats. However, with more positive expectations and self-efficacy, individuals can formulate behaviour intention. As individuals take the decision and formulate concrete goal intention based on their realistic judgement, they move to the pre-action phase.

At the pre-action phase, after a decision has been taken, the “realism window” is closed and optimism is higher, whereas threats are less but with fewer alternatives (Schwarzer, 1998). Optimism at this stage has several advantages. First, optimism can be noted in facilitating coping and persisting through difficult times rather than disengagement (Scheier et al., 1994). This is consistent with the model of behavioural self-regulation (Carver & Scheier, 1990) which articulates that intention enactment often encounters difficulties. Hence, people tend to evaluate the level of these obstacles. The evaluation might include internal obstacles such as skills and knowledge or external obstacles. In case the level of difficulties affects intended action, people tend to further assess the likelihood of converting their intention into action. This expectation depends on their confidence about performing the intended action. Thus, high self-efficacy induces favourable expectations and, hence, proceeding to action. However, self-doubt induces unfavourable expectations and, consequently, disengagement (Carver & Scheier, 1990). As stated, “People are remaining engaged in efforts to overcome adversity to

reach goals if their expectancies of eventual success are sufficiently favourable (Scheier et al., 1994, p.1064); thus, the more optimism that exists at this stage, the more grit there is (Armor & Taylor, 2003).

Second, according to Gollwitzer (2003), at the pre-action phase, people tend to plan about achieving a chosen alternative and deal less with feasibility processes. Hence, they encounter positive impressions of high degrees of self-control. The positive optimism might help people to persist against difficulties, strive for goal achievement, and raise their success expectations. Finally, at this stage, optimism might reflect the commitment of the individual about the chosen alternative. According to Krueger et al. (2000), optimism consistently reflects commitment of people about goal-directed behaviours.

Research has demonstrated that entrepreneurs are notably more optimistic in their assessments of business situations (Cooper et al., 1988; Ivanova & Elissaveta, 2003; Ucbasaran et al., 2010) compared to non-entrepreneurs (Palich & Bagby, 1995; Hatten, 1997; Baron, 1998). According to categorisation theory, one of the explanations for that can be that the mental prototype or schema of entrepreneurs tends to favour and accept potential businesses compared to the prototype or schema of non-entrepreneurs which tends to threaten and doubt (Palich & Bagby, 1995).

A point of caution, however, is that high desirability, feasibility and entrepreneurial self-efficacy might cause overestimated outcomes control. This overestimation of ability to control outcomes might result in the “illusion of control”. According to Gollwitzer (2003), the high desirability of a goal might reduce the deliberation and hence make the goal appear more favourable. However, careful deliberating individuals are more likely to undertake analysis and weighting (Gollwitzer & Kenny, 1989, 2003; Armor & Taylor, 2003).

Consequently, it is argued that both types of thinking are helpful in the process of carrying out intentions. Prior to the decision stage, thorough deliberation about pros and cons, people need to formulate a binding goal successfully. At the pre-action phase, people need to believe in their ability to control the situation so that they can initiate action and strive (Taylor & Gollwitzer, 1995). It is further argued that people must not be extensively optimistic; thus, prior to taking a decision, they need to be realistic and evaluate alternatives equally. However, after taking the decision, they need to be optimistic as the alternative has been chosen whereas threats and caution are replaced by high optimism (Schwarzer, 1998).

In summary, formulating goal intention with commitment (desirability and feasibility) is inadequate to strive successfully for goal attainment (Kautonen et al., 2013; Gielnik et al., 2014; Van Gelderen et al., 2015). As people chose a concrete goal with commitment and self-efficacy, they move to the second phase of pre-action (goal striving) (Heckhausen, 1991; Spiess & Wittmann, 1999; Leary et al., 2006; Wieber & Gollwitzer, 2015). In the case of a challenging goal which involves time and effort, they tend to encounter difficulties that may threaten their goal pursuit. These problems include initiating goal pursuits, staying on track, discontinuing, and over-extending (Gollwitzer & Sheeran, 2006). Hence, individuals need to perform actions and behaviours to counter these problems and improve their ability to succeed in pursuing their goal (Kuhl and Fuhrmann, 1998; Gollwitzer, 1999; Marsh et al., 2002; Bryant, 2009).

Implementation intention can be one of the acts that people apply to improve their ability to pursue their goals (Gollwitzer & Sheeran, 2006). Thus, it guides them to more effective self-regulation and automates goal striving (Gollwitzer, 1999). As far as the problem of getting started is concerned, it was shown that formulating implementation intention of when, what, and where to start a goal can facilitate starting goal striving (Gollwitzer & Brandstätter, 1997).

In fact, some studies found that implementation intention is able to promote goal striving even though it might involve unpleasant acts (Holland, Aarts, & Langendam, 2006).

Some goals, however, require time and effort and cannot be accomplished by a single act (Bagozzi, 1992; Gollwitzer, 1993; Brannback et al., 2007). Hence, people might be distracted by other goals and temptations which can cause preferences to change. At this stage, it is argued that implementation intention can help individuals to stay on track rather than to change their goals. Thus, it can shield the ongoing pursuits from internal and external distractions (Achtziger et al., 2008).

Further, sometimes people find that the chosen goal is not the right goal and hence it becomes undesirable or unfeasible; consequently, they need to stop pursuing such goal. It is argued that implementation intention can facilitate people to disengage from such goals (Henderson et al., 2007). As far as the problem of overextending oneself is concerned, implementation intention can automate goal pursuits through the *If-Then* plan. Hence, it is found that forming an action plan reduces the effort of deliberation under demanding conditions (Webb & Sheeran, 2003).

Consequently, implementation intention facilitates action control (Bayer et al., 2010) and improves the capability of goal pursuit (Gollwitzer & Sheeran, 2006). This leads to the hypothesis that optimism mediates the relationship between entrepreneurial goal intention and self-regulation.

H7: Goal intention is directly and positively related to optimism.

H8: Optimism is directly and positively related to self-regulation.

Coping with Failure

At the pre-action phase, difficult situations can threaten goals' achievement (Gollwitzer, 1993, Kuhl, 2000; Marsh, 2002; Bayer et al., 2010). Hence, people need to cope with such stressful conditions to achieve their goals (Patzelt & Shepherd, 2011). Coping is defined as "the thoughts and behaviours used to manage the internal and external demands of situations that are appraised as stressful" (Folkman & Moskowitz, 2004, p.747)

As individuals encounter an event, they often evaluate it against their wellbeing. This process refers to event appraisal (Lazarus & Folkman, 1984). The event appraisal is "the process of categorizing an encounter, and its various facets, with respect to its significance for wellbeing" (Lazarus & Folkman, 1984, p. 31). The way that people evaluate a situation in life is crucial as it influences their quality of life, performance, confidence, and expectations.

There are two main appraisal levels; these are *primary* and *secondary*. The former is where an individual categorises a stressful situation as a threat or a challenge. The latter is where the individual thinks about ways to cope with the situation. The primary appraisal of a situation as either threat or challenge reveals different emotions, reactions, and outcomes. When a person appraises a situation as a threat, it means that they expect potential loss and negative effect on wellbeing. This primary appraisal is often accompanied with negative emotions such as doubt. However, when a person appraises a situation as challenging, it means that they expect potential gain and positive effect on wellbeing. This primary appraisal is often accompanied with positive emotions such as confidence (Lazarus & Folkman, 1984).

The secondary appraisal is about evaluating coping resources with stressful situations. As people evaluate stressful conditions as threats to their wellbeing, they induce self-emotions of doubt and promote feelings of low confidence. This feeling lowers the level of belief to control outcomes. They believe that the threatening situation exceeds all their coping

resources where their available coping strategies do not lead to the required outcomes. In other words, as the belief of controllability is reduced, their emotion of fear increases while their coping style is inhibited or blocked. However, when people primarily induce the emotions of excitement by appraising a situation as a challenge, they experience feeling of confidence. This feeling increases the level of belief in controllability and reduces fear of stress. Hence, they expect that they can employ all available coping resources and strategies to achieve the targeted outcomes. In other words, they are ready to cope with stressful situations and persist against difficulties (Bandura, 1982; Lazarus & Folkman, 1984).

As far as entrepreneurship is concerned, although entrepreneurship has been associated with many positive emotions through motivations such as excitement and desirability, there are other negative emotions to encounter. These negative emotions include stress, loneliness, guilt, self-blame, anxiety, and depression (Shepherd, 2003). Patzelt and Shepherd (2011) argued that positive and negative emotions can be relatively independent dimensions and individuals might experience both emotions simultaneously. Thus, entrepreneurship can create negative emotions at different levels depending on coping strategy (Patzelt & Shepherd, 2011). The importance of this matter is due to the ability of either stress emotions or positive emotions to diminish the other and hence lead to success or failure (Shepherd, 2003).

Stress is defined as “a process in which environmental events or forces threaten the wellbeing of an individual in society” (Ahmad & Xavier, 2010, p.25). It is about how an individual reacts internally to an event which is considered as a threat (Clarke & Watson, 1991). One of the main concerns about stress is that it can trigger several events that eventually lead to failure (Ahmad & Xavier, 2010). Stress is inevitable in day-to-day life and people might differ in the way they appraise it and cope with it. Further, different appraisals are accompanied by different emotions.

Robinson (2004) argued that entrepreneurship is more stressful than being employed. Empirical studies confirmed that 70% of entrepreneurs believe that entrepreneurship is more stressful than regular employment (Ahmad & Xavier, 2010). The reason behind such stress is due to the nature of the entrepreneur's role in creating a business. This role includes recognising opportunities, managing resources, and dealing with uncertainties (Shane & Venkataraman, 2000). Thus, it is argued that stress is one of the factors which discourage people from becoming entrepreneurs (Mellahi & Wilkinson, 2005); in other words, people may "fear the potential negative emotional consequences of their choice" (Patzelt et al., 2011, p.235).

Potential entrepreneurs with entrepreneurial goal intention might experience positive emotions of motivations as well as negative emotions of expected stressful conditions of entrepreneurship. The importance of this matter is due to the ability of either emotion to diminish the other and hence lead to success or failure (Shepherd, 2003). Thus, the role of readiness to cope with stressful situations comes into the picture.

Reference to coping theory, individuals with entrepreneurial goal intention might appraise the expected stressful conditions of entrepreneurship as either a threat to or a challenge for their wellbeing. In the case that they judge conditions as a threat, this means they expect negative outcomes of such threatening activity. This primary appraisal reduces coping where they believe that they do not have enough resources to cope with the stressful conditions of entrepreneurship such as failure. Hence, they feel that all available coping resources are blocked. This feeling of inability to control outcomes can increase fear of failure and reduce persistence (Lazarus & Folkman, 1984).

In the case where people judge conditions as a challenge, however, it means that they expect positive outcomes of such challenging activity. This primary appraisal increases coping

where they believe that they have enough resources to cope with stressful entrepreneurship conditions such as failure. Hence, they feel that all available coping resources are accessible. This feeling of ability to control outcomes can reduce fear of failure and increase persistence (Lazarus and Folkman, 1984).

Potential entrepreneurs with concrete entrepreneurial goal intention and entrepreneurial self-efficacy might believe that they have the coping resources which enable them to regulate potentially stressful situations. The ability of people with high commitment and entrepreneurial self-efficacy might be consistent with the argument of Patzelt et al. (2011) that people who intend to start business but experience fear due to potential stressful emotions need to understand that entrepreneurship can support them with the prerequisites to cope effectively with such difficulties.

The model of self-regulation of emotions addresses the relationship between coping and self-regulation. It asserts that after detecting the gap between intention and action, people might experience negative emotions. Hence, they evaluate the situation positively or negatively. In case of negative judgement, negative feelings emerge which increase their doubt about their ability to accomplish their goal. However, positive evaluation induces positive feelings about their confidence to achieve their goal. Consequently, they persist and continue until the gap diminishes.

This leads to the following two hypotheses:

H9: Goal intention is directly and positively related to coping with failure.

H10: Coping with failure is directly and positively related to self-regulation.

Having looked at implementation intention and volitional competencies, we next look at the personal variable of action orientation.

Action Orientation

At the pre-action phase, people are under volitional status compared to motivational status at the pre-decision phase (Figure 6). Volition is one element of the self-regulatory processes that enable people to maintain and initiate goal intentions formulated at the pre-decision phase (Kuhl, 1994a, Gollwitzer, 1996; Palfai et al., 2002). According to Bagozzi et al. (1992), action control refers to self-regulatory mechanisms that facilitate converting intentions into actions. Thus, people differ in their capability to carry out their intentions.

According to action control theory, people differ with respect to their self-regulation capacities. Action-oriented people have high self-regulatory capacity and, hence, are more likely to maintain and initiate intentions whereas state-oriented people are less likely to persist among action phases (Kuhl & Beckmann, 1985, 1992, 1994a). Action orientation refers to readiness to act whereas state orientation reflects state of inaction (Bagozzi et al., 1992). Action control theory identified two main dimensions of action orientation which facilitate maintaining and initiating goal intentions; namely, *initiative persistence* and *disengagement*. Thus, action-oriented people are more likely to achieve goal intentions as they can apply self-regulation capacities of proactiveness, perseverance, and withdrawal from unattainable goals (Kuhl, 1994a; Palfai et al., 2002). The ability to activate and access self-regulatory processes is crucial for bridging the intention-action gap (Palfai et al., 2002).

In comparison with wishes, formulating intention indicates that people are committed to behaviour (Heckhausen & Kuhl, 1985; Kuhl, 1987,). However, this commitment is to be applied at some point in the future. Thus, intention stays in the memory until it is activated and induces people to act (Goschke & Kuhl, 1993). To execute the postponed intention, there is a need to activate it at some point in time. It is argued that the activation of postponed intention requires two main steps. First, the individual need to remember when the moment or the cue to execute the postponed intention is. This refers to the “memory for intent”. Second,

the individual needs to recall what must be done to execute the postponed intention. This refers to the “memory for content”. The intent and content represent intention in memory. Hence, to execute intention, people ought to activate the intent representation from memory (Goschke & Kuhl, 1993).

According to the PSI theory intentions to act increases intention memory load (Goschke & Kuhl, 1993). This load of unfulfilled intentions can cause negative emotions and hence inability to perform action. This phenomenon is called the “intention superiority effect” and its influence may depend on personal disposition – either *state orientation* or *action orientation*. It is more salient in state-oriented people compared to action-oriented people. This is further confirmed by Penningroth (2005) who stated that the intention superiority effect is moderated by state or action orientation.

State oriented individuals’ intention memory is continuously activated and loaded with intentions compared to action-oriented people. However, this argument seems inconsistent with other arguments stating that action-oriented people take decisions and initiate actions faster than state-oriented people do (Kuhl & Fuhrmann, 1998). Thus, the action-oriented individual can initiate actions under difficult situations whereas the state-oriented individual hesitates and postpones actions (Kuhl, 1994a). This raises the concern that although some people with intention-related information memory are continuously active, they fail to translate their intention into action (Kuhl, 2000, 2001).

This is consistent with Marsh et al.’s (2002) argument that a person needs three main processes to carry out intention successfully. These processes include detecting the goal, retrieving the intention, and managing the intended activity alongside other ongoing activities. The first process of noticing the goal is relevant to the two self-regulatory factors –

formulating goal intention and *formulating implementation intention*. However, there is a need for a third process; this is *managing intention* alongside other ongoing activities.

At this stage, it is expected that action-oriented people are capable of managing uncompleted intentions by deactivating them until they come across opportunity for enactment. They are further able to apply self-motivation and generate positive affect which facilitates action initiation under challenging goals. This enables them to choose among goals under a high load of unfulfilled intentions. However, state-oriented people tend to continuously activate intentions' representation in memory. Hence, under difficult goals, this leads to many uncompleted intentions and creates low positive affect. Ultimately, they are unable to carry out their intentions by ruminating about unfulfilled intentions and postponing actions (Goschke & Kuhl, 1993; Penningroth, 2005).

Consequently, Kaze'n et al. (2008, p. 696) stated that

‘...efficient enactment of an intention does not need to be equated with high activation of the cognitive representation of that intention: Actual enactment of intentions may depend on additional (volitional or motivational) variables that go beyond the declarative representation of its contents’.

Thus, it is expected that action orientation is one of the additional volitional factors that go beyond formulating entrepreneurial goal intention.

In the case of entrepreneurship, at the pre-decision phase, overload of intention memory with unfulfilled intentions has less influence on action-oriented people compared to state-oriented people. The reason is that action-oriented people can manage to deactivate uncompleted intentions until a suitable opportunity. Hence, it is expected that the higher the entrepreneurial goal intention, the lower the influence on action orientation. This leads to the hypothesis that:

H11: Entrepreneurial goal intention is directly and negatively related to action orientation.

Having looked at the relationship between goal intention and action orientation, next, the relationship between action orientation and self-regulation is assessed.

Kuhl and Fuhrmann (1998, p.25) evaluate volitional efficiency of an individual by stating that “conscious judgements about one’s volitional efficiency can be affected both by one’s actual competencies and by the accessibility of these competencies under stressful or frustrating conditions”. Hence, the relationship between action orientation and self-regulation depends on three main determinants, which are *competence*, *accessibility to self-regulation*, and *condition*.

As far as action orientation is concerned, in the case of favourable tasks, it is argued that action-oriented people are capable of managing a low positive affect of stressful conditions. They tend to manage that by generating positive affect through self-motivation rather than external motivation. Hence, they have high accessibility to the self-regulation mode if tasks are attractive and self-supporting. However, with unfavourable tasks, they cannot access the self-regulation mode. Hence, they are incapable of generating positive affect through self-motivation (Kuhl & Fuhrmann, 1998).

As far as state orientation is concerned, it is argued that state-oriented people are incapable of managing the low positive affect of stressful conditions. They tend to activate many uncompleted intentions and experience low positive affect. Thus, they cannot access self-regulation under stressful conditions to be able to apply self-motivation. Hence, they often ruminate about uncompleted intentions and postpone actions as they cannot access the self-regulation mode. However, the absence of self-motivation for state-oriented people does not

necessarily result in inaction. The reason is people can enhance action initiation by external motivations (Kuhl & Fuhrmann, 1998).

In the case of entrepreneurship, it is expected that action-oriented people can manage stressful conditions of entrepreneurship more than state-oriented people can. The reason is that they can access the self-regulation mode and apply self-motivation to encounter a low positive affect. However, this is applicable only in cases of stressful conditions, favourable tasks, and self-support situations. This leads to the hypothesis that:

H12: Action orientation is directly and positively related to self-regulation.

In summary, after formulating strong entrepreneurial goal intention at the pre-decision phase, people progress to the pre-action phase. At this phase, they tend to encounter difficulties in initiating intended action. Hence, they require self-regulation to pursue with their goals. The study suggests several self-regulation determinants including implementation intention, optimism, coping with failure, and action orientation.

Having looked at self-regulation determinants at the pre-action phase, the main concern now is the ability to implement these mechanisms to bridge the intention-action gap. This is achieved by inducing the relevant mind-set that facilitates these tasks – namely, the *implemental mind-set* (Gollwitzer, 1990, 2003; Brannback et al., 2007). The notion of implemental mind-set is discussed in the following section.

4.2.7. Implemental Mind-set

Based on the Rubicon Model (Figure 6), Gollwitzer (1990) argued that each action phase is accompanied by a distinct mind-set. The pre-action phase is associated with the implemental mind-set. The implemental mind-set refers to “the cognitive and motivational states

associated with post-decisional frame of mind” (Armor & Taylor, 2003, p.86). It is further defined as “mental state of execution for the goal intention” (Ilouga et al., 2014, p.720).

At the pre-action phase, formulating the implementation plan creates an implemental mind-set which facilitates the task of initiating action. It facilitates the tasks of control processes to implement the goal intention (Ilouga et al., 2014). Further, it helps to navigate from the pre-action phase to the action phase. It is characterised as the “closed-minded” processing of information as the focus is on implementing the chosen goal rather than deliberating about other desires and wishes (Gollwitzer, 2003; Fujita et al., 2007; Gollwitzer et al., 2011).

In real life, when people are confronted with the problem of deciding among alternatives, they can induce a deliberative mind-set to facilitate self-regulation through goal setting. However, formulating just goal intention does not guarantee taking an action. Instead, the individual might start facing difficulties of action initiation. Hence, there is a need to induce the implemental mind-set to facilitate the goal striving. Consequently, it is argued that the notion of mind-set is an "effective action control strategy in real life" (Gollwitzer, 2003, p.265).

Following the self-regulation model of *actions* (Figure 8), the self-regulation model of *emotions* (Figure 9) (Carver & Scheier, 1990), the theory of *mind-sets* (Gollwitzer, 1990), and the theory of *implementation intention* (Gollwitzer, 1993), the inconsistency between goal intention and action might be due to two main reasons. The first is the lack of a deliberative mind-set where no goal has been set or the goal is not concrete enough to ensure commitment and entrepreneurial self-efficacy. The second is the lack of an implemental mind-set where individuals do not furnish goal intention with implementation intention or volitional competencies.

To bridge the intention-action gap, it is argued that there is a need to move from goal intention to implementation intention (Gollwitzer et al., 2011). This implies the need to progress from the deliberative mind-set only to the implemental mind-set (Fujita et al., 2007; Gollwitzer et al., 2011). Hence, it is crucial to conceptualise entrepreneurial mind-sets to facilitate the navigation through action phases and bridging the intention-action gap. The suggested determinants of self-regulation at the pre-action phase (implemental mind-set) are given in Table 4.

Table 4 Implemental Mind-set

Action Phase	Determinants of Self-Regulation
Pre-Action	Implementation Intention
	Optimism
	Coping with Failure
	Action Orientation

In this sense, this study suggests the conceptual framework (Figure 14) as the entrepreneurial implemental mind-set, drawing on the arguments that self-regulation describes how people direct their thoughts and behaviours towards achieving their goals (Bryant, 2009). Further, based on the self-regulation model of action (Figure 8) which advocates that self-regulation entail two components namely, monitoring goals and operating, this part of the study model reflects the second component of performing actions to bridge detected dissonancy between intention and action.

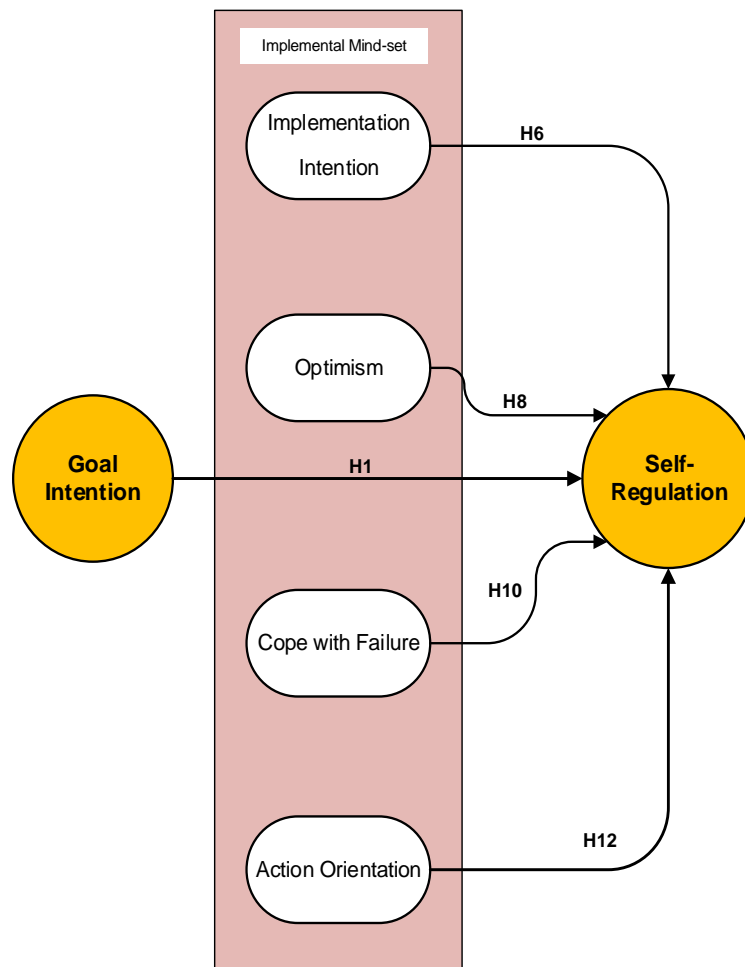


Figure 14 Implemental Mind-Set

Having looked at self-regulation determinants at the pre-action phase, the main concern now is how people can bridge the entrepreneurial goal intention-action gap. In other words, assuming self-regulation is the most proximal predictor of action, does applying the suggested self-regulation determinants increase their self-regulation capacity? Hence, the third research question is:

Research Question 3: Does the implemental mind-set mediate the relationship between goal intention and self-regulation?

In this sense, this study suggests the mediation relationship between goal intention and self-regulation through implementation intention, optimism, coping with failure, and action orientation as given in Figure 15.

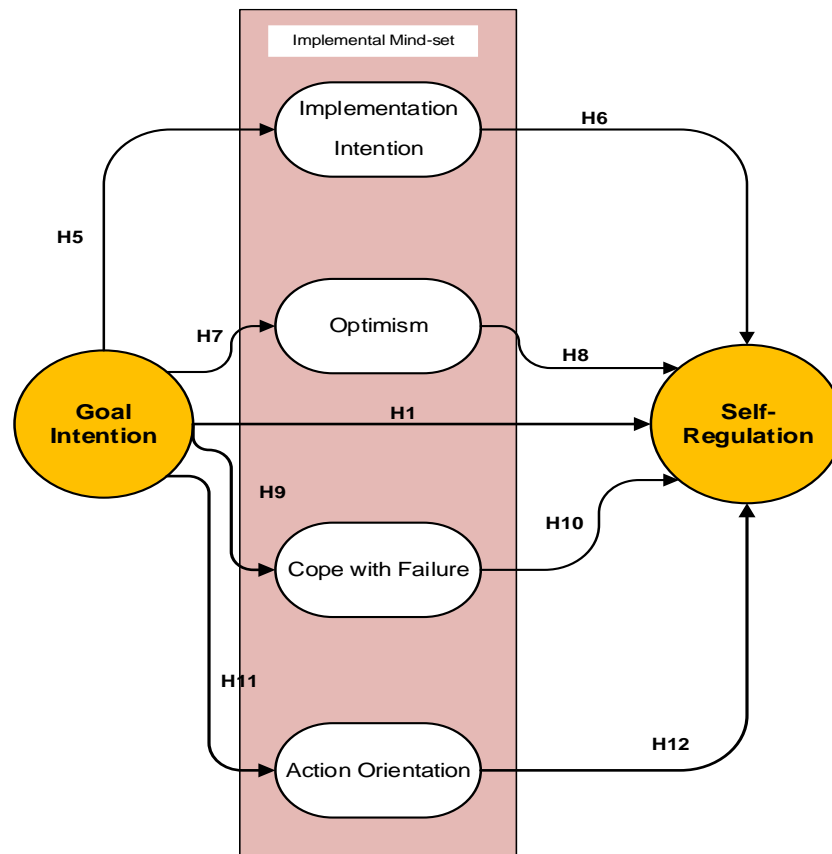


Figure 15 Effect of Implemental Mind-Set

Having explored possible cognitive inhibitors at the pre-decision phase and pre-action phase, next we look at the environmental factor as the external influencer for entrepreneurial behaviour.

4.3. Cultural Factors

Although entrepreneurship is important for the economy and social development, there are different entrepreneurial activity levels among countries (GEM, 2010). There is a debate about the reasons behind the low levels of entrepreneurial activity. Stenholm et al. (2013,

p.177) argued that “the rate of entrepreneurial activity varies widely across countries, yet we struggle to explain precisely why”. The traditional notion about the differences between countries in entrepreneurial activity is attributed to economic conditions and framework conditions (Wennekers, 2006; Levie & Autio, 2008). However, the persistence of these variations among countries is questionable. According to Foreman-Peck and Zhou (2013), the difference between nations among entrepreneurial activities might not be explained easily through economic indicators. It is rather more applicable to explain this variation through differences in opportunities, motivations, aspirations, institutions, and cultures.

According to the social cognitive theory (Figure 4) and the norm theory, environment can influence behaviour. The indirect influence can be through cognition where the environment affects behaviours through people’s thoughts and decisions (Bandura, 2001). Hence, it is crucial to explore environmental factors which might play a role in the entrepreneurial goal intention-action gap.

Understanding cognitive processes where individuals interpret and deal with diverse situations does not imply that the vital role of environment should be ignored (Lazarus & Folkman, 1984). The interaction between people and environment is full of stimuli and stressors in day-to-day events. Thus, stressful situations can result from the interplay between environment and individuals (Lazarus & Folkman, 1984).

Although environmental factors may include several aspects such as economic conditions, socioeconomic status, education, and family structures (Bandura, 2001), this study focuses on cultural values to address the main research question about the factors that bridge the entrepreneurial intention-action gap. Following the arguments that the “ultimate evidence for what a person values lies in their actions” (Lock, 1991, p. 291), it is argued that values explain behaviours and represent effective forces enabling people to direct and control their

behaviours (Halman & De Moor, 1994; Mueller & Thomas, 2001). Hence, cultural values might indirectly affect the entrepreneurial intention-action gap.

Cultures can influence entrepreneurial activity from several perspectives. First, understanding cultural values might explain the reasons why some countries have similar entrepreneurial policies but different rates of entrepreneurial activity. Thus, policy makers need to consider that different cultures might lead to different reactions to policies. Second, understanding cultural differences and values system behind these may help to discount the importance of generalising entrepreneurship experiments and outcomes. Thus, the ability to identify the cultural values underlying various cultures can enable policy makers to design more effective entrepreneurial programmes that address people's needs (Mueller & Thomas, 2001).

Third, understanding the influence of cultural factors on entrepreneurial activity can promote the effectiveness of government policies and incentives. According to Pinillos and Reyes (2011), understanding the influence of cultural differences on entrepreneurial activity is helpful to design policy measures for promoting entrepreneurship. To encourage entrepreneurship, policy makers can target cultural factors which have a strong relationship with entrepreneurial activity. Finally, according to Pinillos and Reyes (2011), it is crucial to understand entrepreneurial culture as different nations might have different values and motivations for entrepreneurship. Thus, it might be argued that each culture can implement its context to encourage and support entrepreneurial behaviour.

Consequently, unsupportive cultural values may discourage potential entrepreneurs in terms of motivations, confidence, and persistence (Mueller & Thomas, 2001). To explore the influence of cultural values, two main types of cultural values – *materialistic* and *post-materialistic* – are examined next.

4.3.1. Materialistic and Post-Materialistic Values

Based on Maslow's theory of the hierarchy of human needs (Morales & Holtschlag, 2013), it is argued that people **priorities** based on their needs. For example, in the case of economic conditions of scarcity, their priority is basic such as financial security. In case of economic conditions of prosperity, their priority is higher such as self-esteem (Morales & Holtschlag, 2013). However, values change theory argues that the relationship between economic conditions and values priorities is not a simple or direct one. In fact, it might be influenced by two key theories; the theories of *scarcity* and *socialisation* (Inglehart, 1977, 1990, 2008).

The socialisation theory holds that people normally have values, which reflect the circumstances they face during their early stages of life (Inglehart, 1977, 1990, 2008). According to Duch et al. (1993), people develop post-materialistic values when they experienced economic security during the early years of life. These values last for the lifetime and are hard to change. On the contrary, they acquire materialistic values when they undergo insufficient economic conditions during the early years of life. Post-materialism is defined as "the degree to which a society places immaterial life-goals such as personal development and self-esteem above material security" (Uhlener & Thurik, 2007, p.162). Materialistic value is about physical and economical security whereas post-materialistic value is about higher-order needs.

The scarcity theory postulates that individuals tend to place highest priorities on things that are in short supply. Thus, their preference often reflects the existing socioeconomic conditions (Duch & Rusk., 1993). In scarce economic conditions, the priority is basic needs such as survival. As far as socialisation is concerned, these values are mainly established during pre-adulthood and are very slow to change. As the economic conditions change from scarcity to wealth, the new generation that experienced abundant economic conditions during

pre-adulthood develop post-materialistic values of higher-order needs. As a new generation replaces the old generation, values change from materialistic values to post-materialistic values (Inglehart, 1977, 1990; Morales & Holtschlag, 2013).

Several studies investigated the relationship between cultural values and entrepreneurship. One of the studies revealed that, at country level, post-materialism values are negatively related to total entrepreneurial activity (Uhlener & Thurik, 2007). Another study extended this result by looking at the relationship between post-materialistic values and entrepreneurial activity from the individual level (Morales & Holtschlag, 2013). The study confirmed that at the individual level post-materialism values are negatively related to total entrepreneurial activity. It is further argued that entrepreneurs are more materialistic and that a society with fewer materialistic individuals will have fewer entrepreneurs (Uhlener & Thurik, 2007). In other words, individuals with materialistic values are more likely to be entrepreneurs.

The influence of post-materialistic values on goal intentions is in line with the motivation sequence framework (Figure 16) suggested by Locke (1991). The motivation sequence framework postulates that people often have many needs in accordance with Maslow's theory. Hence, they acquire values to satisfy these needs. Next, they set goals that match their values and help them to fulfil their needs. The model refers to TPB (Ajzen, 1991) to represent the stage of formulating goals and intentions.

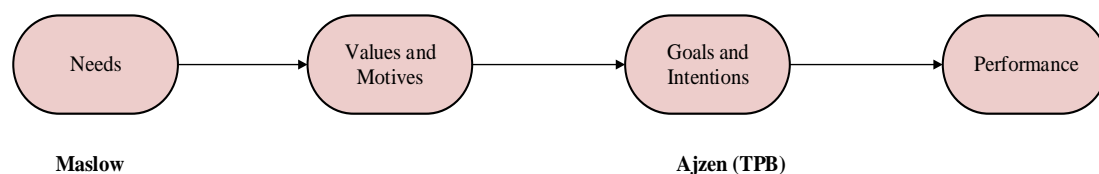


Figure 16 Motivation Sequence

Source: Locke (1991, p.289)

Although the main question of this study is about factors that explain entrepreneurial goal intention-action gap at pre-decision and pre-action phases (Figure 6), inclusion of the post-materialistic values effect prior to the pre-decision phase is justifiable. First, the influence of post-materialistic values in some contexts is very salient, such as in the case of Saudi Arabia (chapter two). Second, although each cognition factor and cultural factor is an important inhibitor of behaviours, scholars argued that the interplay between them can play a vital role in influencing behaviours. According to Lazarus and Folkman (1984), it is crucial to consider the interplay between environmental and cognitive factors to explain stressful events. As stated by Bandura:

‘In social cognitive theory, sociostructural factors operate through psychological mechanisms of the self-system to produce behavioural effects. Thus, for example, economic conditions, socioeconomic status, and educational and family structures affect behaviour largely through their impact on people’s aspirations, sense of efficacy, personal standards, affective states, and other self-regulatory influences, rather than directly’ (2001, p. 15).

This indicates that the cognition factor is not the only factor that could inhibit behaviours. Hence, it is important to consider the interplay between culture and cognition. Further, there is an indirect relationship between culture and behaviour; in other words, culture can inhibit behaviour indirectly by influencing the way people think and interpret the world around them (cognition).

Having looked at the importance of cultural values in the entrepreneurship domain, the fourth research question is:

Research Question 4: What is the influence of post-materialistic values on goal intention?

Although values drive actions (Halman & De moor, 1994; Mueller & Thomas, 2001), the entrepreneurship field lacks studies about materialism/post-materialism values. As stated by Morales and Holtschlag, “if research into the determinants of entrepreneurship is scarce as far

as cultural issues are concerned, it is even scarcer when it comes to the role of post-materialistic values play in entrepreneurship” (2013, p.269). Hence, this study contributes to fill this knowledge gap and explore the role of post-materialistic values in the entrepreneurial goal intention-action gap.

Consequently, this leads the researcher to theorise that post-materialistic values have a direct negative relationship with entrepreneurial goal intention:

Hypothesis 13: Post-Materialistic value is negatively related to goal intention.

The arguments about the role of commitment as well as entrepreneurial self-efficacy in strengthening goal intention (Kuhl, 1985; Gollwitzer, 1999; Locke & Latham, 2006; Ajzen et al., 2009) can lead us to infer that post-materialistic value is indirectly related to goal intention through desirability, feasibility, and entrepreneurial self-efficacy. It can therefore be theorised that the relationship between post-materialistic values and goal intention can be mediated by desirability, feasibility, and entrepreneurial self-efficacy.

H14: Post-Materialistic value is negatively related to desirability.

H15: Post-Materialistic value is negatively related to feasibility.

H16: Post-Materialistic value is negatively related to entrepreneurial self-efficacy.

The suggested relationships between post-materialistic values and goal intention determinants are given in Figure 17.

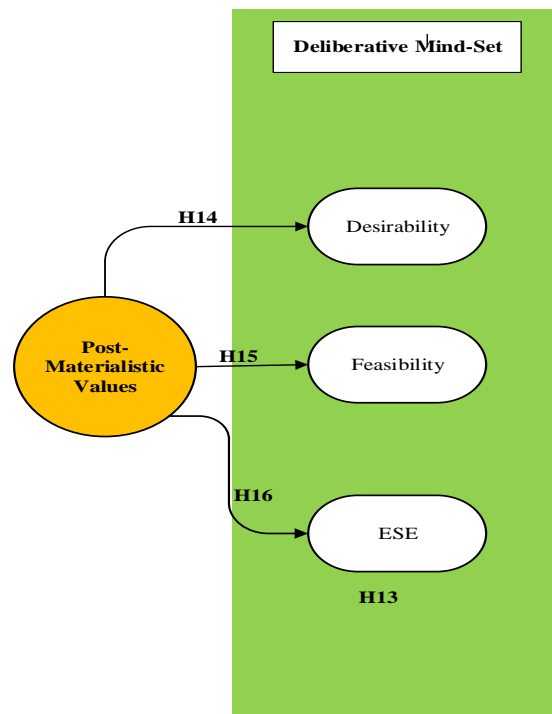


Figure 17 The Influence of Post-Materialistic Values

Consequently, this study includes post-materialistic values as an external factor in exploring the intention-action gap, as given in Table 5.

Table 5 Post-Materialistic Values External Factor

Cultural Values	Influenced Factors
Post-Materialistic	Goal Intention
	Desirability
	Feasibility
	Entrepreneurial Self-Efficacy

Having looked at the influence of post-materialistic values on goal intention, the main concern now is how that can help people to bridge the entrepreneurial goal intention-action gap. In other words, assuming self-regulation is the most proximal predictor of action, does

applying the suggested deliberative mind-set influence the negative effect of post-materialistic values? Hence, the fifth research question is:

Research Question 5: Does a deliberative mind-set mediate the relationship between post-materialistic values and goal intention?

In this sense, this study suggests the mediation relationship between post-materialistic values and goal intention through desirability, feasibility, and self-efficacy as given in Figure 18.

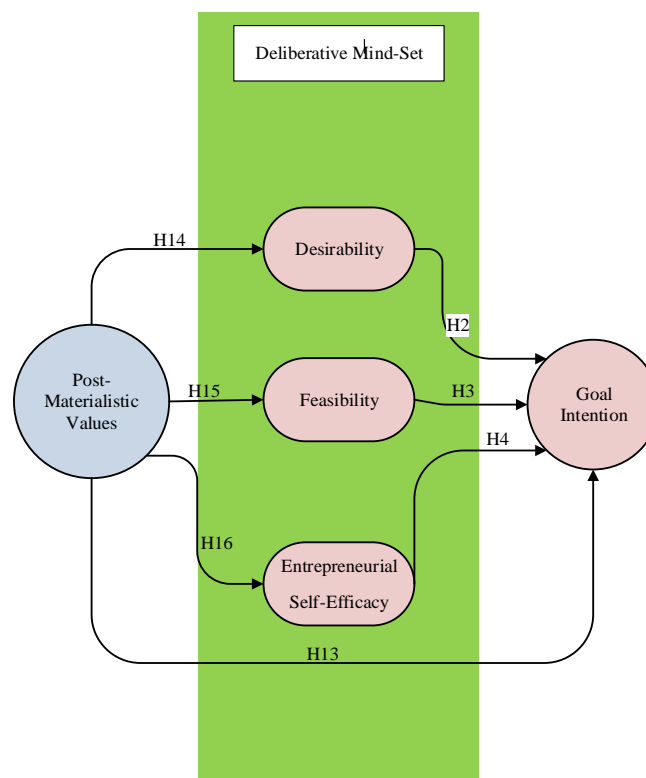


Figure 18 Effect of Deliberative Mind-Set

The study addresses self-regulation determinants at the pre-decision phase, self-regulation determinants factors at the pre-action phase, and external factors of post-materialistic values. Next, the full entrepreneurial mind-set model is described.

4.4. Demographics

The study considers three main demographics that may have an influence on entrepreneurial goal intention; these are gender, age, and education level. The following sections look at this influence.

4.4.1. Gender

It is argued that the rate of becoming an entrepreneur is far higher among men than among women where there are almost twice as many men as women entrepreneurs (de Bruin et al., 2007; Gupta, et al., 2009; Díaz-García & Jiménez-Moreno, 2010). Men are more likely to have entrepreneurial goal intention and to own businesses than women (Quan, 2012). Several studies have been conducted to address the subject of gender differences. A study by Shinnar et al. (2012) has revealed that *culture and perceptions of barriers* moderate these notions. As far as culture is concerned, according to GEM (2010), the ratio of business owners varies among different economics. For example, in the Middle East and North Africa (MENA), men business owners are considerably more than women; however, in other developing economies such as Ghana, women business owners exceed their male counterparts.

Verheul et al. (2011) asserted that males and females may differ in business type and the ways in which they manage their businesses. The difference may be attributed to variation in motivations, satisfaction, and time commitment Harriman (1996). Some argued that both genders may differ in the level of barriers they encounter. Women have more barriers about entrepreneurship compared to men. These barriers include financing, cultural issues, and expectations (Cooper & Artez, 1995). A study was conducted by DeTienne and Chandler (2007) to identify how gender influences the opportunity identification process. The study revealed that although women and men implement various opportunity identification processes based on different knowledge, there is no marginal difference in their innovativeness.

Gupta et al. (2009) highlighted several findings about the relationship between gender and entrepreneurship intention. First, men and women might differ in their entrepreneurship motivation; for example, the motivation of women to pursue self-employment might be to balance work-family responsibilities whereas men aim more for autonomy or financial reward. Second, the low entrepreneurship intention among women compared to men is salient among societies associating entrepreneurship with masculine characteristics. Third, the association of masculine characteristics with entrepreneurship is inherent in women in terms of social and financial support and hence reduces their entrepreneurial activities.

4.4.2. Age

There is an argument about the relationship between age and entrepreneurship. Some argued that older people may be in a better position than younger people to start up a business. This is based on the belief that older people have more experience, knowledge, skills, and financial resources (Platman, 2003; Hart et al., 2004; Cannon, 2008; Lewis & Walker, 2013). However, the opponents of this argument argued that having knowledge and experience does not necessarily imply using them in business start-up. In addition, experience and skills might be more applicable in the business survival stage rather than at the business starting stage (Gartner et al., 1998; Haynes, 2003). According to Lewis and Walker (2013), more caution is required about several notions; these include that life experience is enough for business success, anybody can start business and succeed, and growing older means wisdom and knowledge.

Others argued that younger people have better opportunity to be entrepreneurs than older ones have. This is based on the notion that there is a positive relationship between job satisfaction and age. Thus, people tend to be more satisfied with their jobs as they get older. This might be attributed to the low expectations, aspirations, and opportunities of older people compared to younger ones (Herzog & Rogers, 1986; Cooper & Artez, 1995).

Consequently, older people are less likely to have entrepreneurial goal intention than young people (Quan, 2012). According to GEM (2010), the highest percentage of early-stage entrepreneurs belongs to the young age group of 25-34 followed by the age group of 35-44.

Some prior research has argued that preference moderates the relationship between age and entrepreneurship willingness (Kautonen et al., 2014). Based on the notion that the relationship between age and entrepreneurship follows an “inverse U-shape”, people tend to have increasing intention to start their own business until a particular age such as the late 40s, and then that intention decreases (Le´vesque & Minniti 2006; Parker 2009). One of the justifications for the decreasing intention might be low willingness. It is argued that as people age, their opportunity to start their business increases while their inclination decreases. The opportunity increase can be attributed to the accumulative experience, skills, knowledge, and resources; on the other hand, the decrease in willingness might be due to the nature of business start-ups which involve time, commitment and uncertainty.

Others argued that the willingness and ageing relationship might be moderated by preference (Kautonen et al., 2014). Thus, as people get older, their inclination to spot the entrepreneurship opportunities and accept the cost of time depends on their preference. In the case of high time commitment and risk, entrepreneurship inclination decreases with ageing. In the case where income is rapid and risk is low, the entrepreneurship willingness increases with aging. Finally, in the case of people with no other alternative except business start-up, the influence of age on willingness for entrepreneurship is minimal (Le´vesque & Minniti, 2006; Kautonen et al., 2014).

4.4.3. Education Level

The relationship between education level and entrepreneurship is based on several theoretical frameworks including “human capital theory” and “signalling theory” (Fossen & Buttner,

2013). The former is about productivity while the latter is about information. The human capital theory states that education enhances productivity and hence income. The signalling theory states that education level signals information to the employment market about abilities, motivations, and skills, and hence influences wages (Fossen & Buttner, 2013).

It is argued that better educated entrepreneurs can add value to their ability to run businesses. Thus, they can apply education to enhance productivity (Oosterbeek et al., 2010; van der Sluis et al., 2005). Others argued that the influence of education depends on entrepreneurship motivation, involving necessity and opportunity (Fossen & Tobias, 2013). The opportunity driven entrepreneurs might have better control than the necessity driven ones. Hence, it is expected that opportunity driven entrepreneurs have higher return to education compared to necessity-driven entrepreneurs (Fossen & Buttner, 2013). Another argument about education level and entrepreneurship is that gaining necessary information, knowledge, and mental programming through education and training might enhance the ability to recognise opportunities which is a crucial characteristic of entrepreneurs (Ozgen and Minsky, 2013).

The academia has contributed to emphasise the role of entrepreneurship in the economy and introduced initiatives to support future entrepreneurs (Walter et al., 2013). A longitudinal study about how education level influences likelihood of entrepreneurship has shown that the likelihood of starting, surviving, and re-entering business is increasing with increasing education level (Dolinsky et al., 1993).

Others however argued that although education may increase the accessibility of people to opportunities, it does not guarantee success (Thompson et al., 2010). A meta-analysis about the relationship between education and entrepreneurship in developing and industrialised countries revealed two major results. First, there is a positive relationship between education and enterprise performance. Second, there is no concrete evidence about the relationship

between education and selecting entrepreneurship as a career (van der Sluis et al., 2005). The justifications for this conflict may include cultural differences and motivation types of necessity or opportunity (Fossen & Buttner, 2013). Others argued that the education influence may be moderated by motivation, attitudes towards entrepreneurship, and ethnic groups' perceptions of barriers (Thompson et al., 2010). According to Le (1999), the justification for low entrepreneurship rates at very high levels of education might be the attractiveness of the high paid jobs available.

In summary, demographics of gender, age, and education level have various effects on entrepreneurship intention and entrepreneurial activity. These effects are more relevant to culture, perceptions, motivation, and attitudes.

4.5. Entrepreneurial Mind-Set Model and Bridging the Intention-Action Gap

This section draws on previous sections about theories and concepts to conceptualise the entrepreneurial mind-set model. The entrepreneurial mind-set model aims to address the intention-action gap by integrating self-regulation determinants which influence action initiation. The full model is represented in Figure 19.

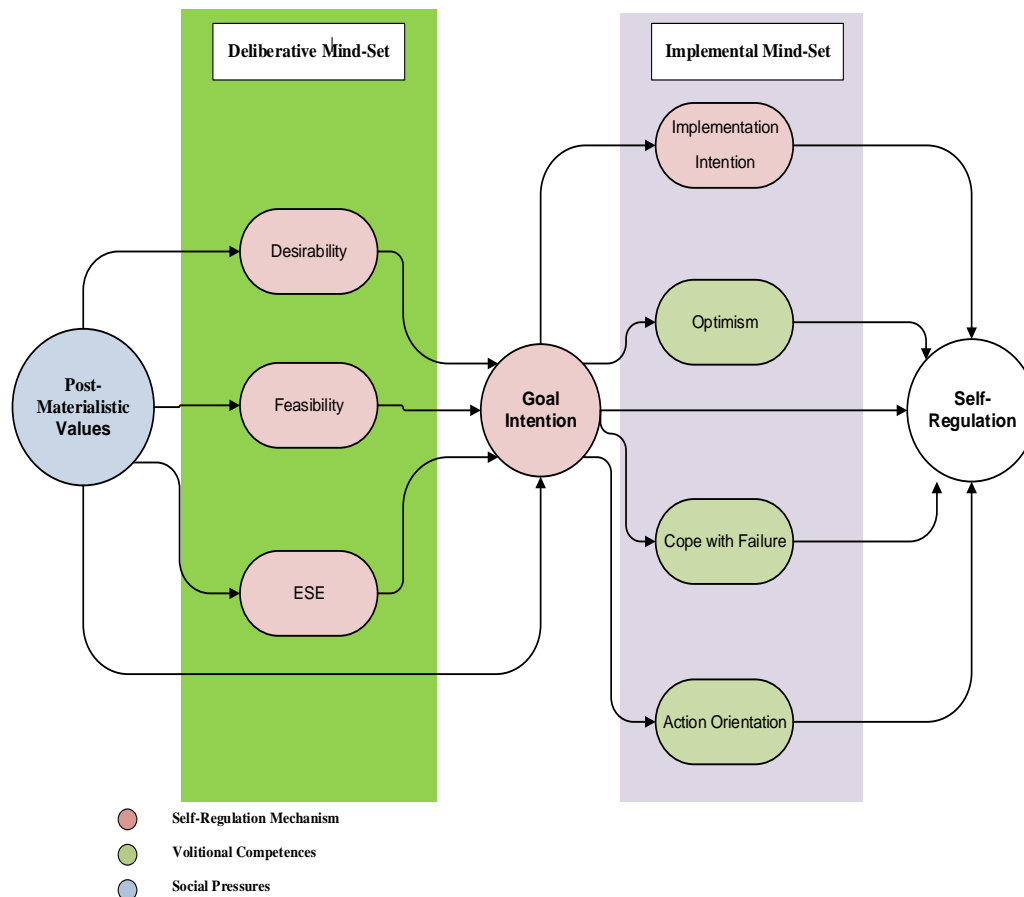


Figure 19 Entrepreneurial Mind-Set Model

To bridge the intention-action gap, Gollwitzer (2003) suggested moving from the deliberative mind-set to the implemental mind-set. This transition can be achieved through several self-regulation determinants. The first involves formulating a concrete entrepreneurial goal intention at the pre-decision phase (Kuhl & Beckmann, 1985; Gollwitzer, 1993; Fayolle & Linan, 2014; Ilouga et al., 2014). The entrepreneurial goal commitment entails perceiving the entrepreneurship option as attractive (desirability) and perceiving the ability to start a business (feasibility). Further, entrepreneurial self-efficacy is another important determinant in formulating a concrete goal (Bandura & Locke, 2003; Locke & Latham, 2006).

Consequently, this study expects that desirability, feasibility, and entrepreneurial self-efficacy determine concrete entrepreneurial goal intention. However, people can induce a deliberative mind-set to facilitate tasks at the pre-decision phase (Gollwitzer, 2003).

Second, formulating implementation intention at the pre-action phase might bridge the intention-action gap (Gollwitzer, 1999, 2003). As intention is about action to be taken in the future, people might forget to initiate action or fail to act in the required situation. Hence, they need to formulate an implementation plan including when to act and what to do in case of opportunities. The action plan can facilitate translating their intention into action by regulating distractions of competing desires. Hence, it is suggested that implementation intention mediates the relationship between goal intention and self-regulation.

Third, expecting positive outcomes of entrepreneurial activity at the pre-action phase might bridge the intention-action gap. It is argued that, at the pre-decision phase, optimistic people tend to be realistic about evaluating options. However, as they make decisions and move to the pre-action phase, their high level of self-efficacy encourages them to expect positive outcomes of an event (Schwarzer, 1998). This enables them to confront difficulties of action initiation and strive toward goal enactment (Armor & Taylor, 2003). Thus, it is expected that optimism mediates the relationship between goal intention and self-regulation.

Fourth, coping with failure at pre-action phase might bridge the intention-action gap. According to coping theory, in case of stressful situation, people tend to perform two main appraisals, namely, primary appraisal and secondary appraisal (Lazarus & Folkman, 1984). In case they primarily evaluate a stressful situation as a challenge, they tend to expect positive effect on wellbeing. This judgement triggers high self-efficacy enabling them to set challenging goals. At secondary appraisal, they evaluate their coping resources as sufficient and hence they strive towards goal achievement. However, if they primarily evaluate a stressful situation as threat, they tend to expect a negative effect on wellbeing. This judgement triggers low self-efficacy causing them to set trivial goals. At secondary appraisal, they evaluate their coping resources as insufficient and hence they fail to cope against

difficulties of enactment. Thus, this study expects that coping with failure mediates the relationship between goal intention and self-regulation (Lazarus & Folkman, 1984).

Fifth, action orientation competence can facilitate bridging the intention-action gap. Intention is about action to be taken in the future; hence, it is stored in memory. Having intentions can overload memory with many unfulfilled intentions. This might result in low positive affect and inaction. However, action-oriented people do not tend to activate many intentions. Instead, they can deactivate uncompleted intentions until such time as they are suitable for enactment. Further, they can manage low positive affect of stressful situations by self-motivation. Hence, they can access self-regulation competencies under stressful conditions (Goschke & Kuhl, 1993; Kuhl & Fuhrmann, 1998). Consequently, it is expected that action orientation mediates the relationship between entrepreneurial goal intention and self-regulation.

The implemental mind-set can facilitate performing these tasks at the pre-action phase to implement goal intention. This study suggests implementation intention, optimism, coping with failure, and action orientation as self-regulation determinants at the pre-action phase for bridging the entrepreneurial goal intention-action gap.

External influencers, however, such as environment can indirectly affect behaviours (Bandura, 2001). One of the salient environmental factors is cultural values where values explain behaviours (Halman & De Moor, 1994) and influence goals and intentions (Locke, 1991). Values can be materialistic or post-materialistic (Inglehart, 1977, 1990, 2008); people with materialistic values prioritise basic needs such as economic security whereas individuals with post-materialistic values prioritise higher needs such as self-esteem. However, it is argued that these values are determined by needs at pre-adulthood. Thus, a person who experiences scarcity in the pre-adult years might build materialistic values whereas the

individual who experiences abundance might build post-materialistic values. These values are established and last for a life time. However, it is argued that values may change between materialistic and post-materialistic as economic conditions change and new generations replace old generations (Inglehart, 1977, 1990; Morales & Holtschlag, 2013).

The value change can influence entrepreneurial activity from two perspectives. First, entrepreneurs are more likely to be materialistic whereas non-entrepreneurs are post-materialistic (Uhlaner & Thurik, 2007). Thus, people with post-materialistic values who prefer a certain lifestyle might not consider entrepreneurship as an attractive option. Second, countries with post-materialistic values might have fewer entrepreneurs (Uhlaner & Thurik, 2007; Uhlaner et al., 2002; Morales & Holtschlag, 2013).

This study adds the external factor of post-materialistic values to the conceptual framework to explore the influence of post-materialistic values on the deliberative mind-set. It reflects the concepts of values to explain behaviours as well as how values indirectly influence behaviours through goal intention.

The entrepreneurial mind-set model addresses several limitations in the entrepreneurial field of studies. These limitations are summarised as follows:

1. Scarcity of studies about the influence of post-materialistic values on entrepreneurship. Morales and Holtschlag (2013) stated that, in general, studies about cultural determinants of entrepreneurship are scarce; and even scarcer about post-materialistic issues.
2. Limited number of studies in the intention-action link. Fayolle and Linan (2014) asserted that there is a gap in knowledge about converting entrepreneurial goal intention into action.

3. Limited number of studies about the role of volitions in entrepreneurship. According to Ilouga et al. (2014), there is inadequate explanation about the volitional role in entrepreneurship.
4. Lack of studies about different levels of entrepreneurial goal intention. Scholars emphasised the need for another intention level other than goal intention to support goal striving (Krueger et al., 2000; Van Gelderen et al., 2015).
5. Lack of studies on the role of commitment in formulating entrepreneurial goal intention. According to Fayolle and Linan (2014), it is surprising that the concept of commitment in entrepreneurship domain studies is has been neglected.
6. Limited number of studies about the role of mind-set in entrepreneurship. According to Leary et al. (2006), creating an action mind-set is vital to fostering self-regulation. Brannback et al. (2007) suggested investigating the role of activating relevant cognitive procedures that facilitate translating intention into action. Fayolle and Linan (2014) articulated that entrepreneurship scholars can make considerable advancement in entrepreneurial goal intention research by investigating the deep assumptions underlying the formulation of entrepreneurial goal intentions.

In summary, the entrepreneurial mind-set model entails determinants of self-regulation—primarily – goals - as well as behaviours and competencies that direct thoughts and actions toward goal achievement. The former refers to the deliberative mind-set whereas the latter refers to the implemental mind-set. Further, it includes the external factor of post-materialistic values. The study hypothesises predictors of entrepreneurial goal intention as desirability, feasibility and entrepreneurial self-efficacy. Further, it hypothesises entrepreneurial goal intention, implementation intention, optimism, action orientation, and coping with failure as predictors of self-regulation. The entrepreneurial mind-set model addresses several limitations of intention models. Having looked at the intention-action gap,

possible causes and entrepreneurial mind-set model, the following section summarises research questions and hypotheses.

4.6. Research Questions and Hypotheses

This study addresses the concern of the entrepreneurial intention-action gap. It aims to identify self-regulation determinants which facilitate translating entrepreneurial goal intention into action. In addition, it aims to highlight the role of post-materialistic values in the discrepancy between entrepreneurial goal intention and action. Thus, the study conceptualised a framework about the entrepreneurial mind-set to explore the underlying cognitive processes from intention formulation to intention initiation. These processes include progressing from the deliberative mind-set to the implemental mind-set. Further, they include the external factor of cultural values.

To accomplish the research aim, each question is associated with several hypotheses as given in Table 6.

Table 6. Entrepreneurial Mind-Set Model and Hypotheses

Research Questions	Hypotheses
<i>Research Question 1: What are the determinants of entrepreneurial goal intention?</i>	H1: Goal intention increases self-regulation. H2: Desirability increases entrepreneurial goal intention. H3: Feasibility increases entrepreneurial goal intention. H4: Entrepreneurial self-efficacy increases entrepreneurial goal intention.
<i>Research Question 2: What are the self-regulation determinants?</i>	H6: Implementation intention is directly and positively related to self-regulation. H8: Optimism is directly and positively related to self-regulation. H10: Coping with failure is directly and positively related to self-regulation. H12: Action orientation is directly and positively related to self-regulation

<p><i>Research Question 3:</i> <i>Does the implemental mind-set mediate the relationship between goal intention and self-regulation?</i></p>	<p>.</p> <p>H5 and H6: Implementation intention mediates the relationship between goal intention and self-regulation.</p> <p>H7 and H8: Optimism mediates the relationship between goal intention and self-regulation</p> <p>H9 and H10: Coping with failure mediates the relationship between goal intention and self-regulation.</p> <p>H11 and H12: Action orientation mediates the relationship between goal intention and self-regulation.</p>
<p><i>Research Question 4:</i> <i>What is the influence of post-materialistic values on goal intention?</i></p>	<p>H13: Post-materialistic values reduce entrepreneurial goal intention.</p> <p>H14: Post-materialistic values reduce desirability.</p> <p>H15: Post-materialistic values reduce feasibility.</p> <p>H16: Post-materialistic values reduce entrepreneurial self-efficacy.</p>
<p><i>Research Question 5:</i> <i>Does a deliberative mind-set mediate the relationship between post-materialistic values and goal intention?</i></p>	<p>H2 and H14: Desirability mediates the relationship between post-materialistic values and goal intention.</p> <p>H3 and H15: Feasibility mediates the relationship between post-materialistic values and goal intention.</p> <p>H4 and H16: Entrepreneurial self-efficacy mediates the relationship between post-materialistic values and goal intention.</p>

4.7. Summary

To address the entrepreneurial goal intention-action gap, this chapter explored the role of two main behaviour inhibitors – cognition and culture. As far as cognition is concerned, it highlights the role of self-regulation on two action phases –pre-decision and pre-action. At the pre-decision phase, it identifies the determinants of setting concrete goal intention along with prerequisites of desirability, feasibility, and entrepreneurial self-efficacy. At the pre-action phase, it identifies self-regulation determinants of implementation intention, optimism,

action orientation, and coping with failure. As far as culture is concerned, the study focuses on cultural values of post-materialism. Hence, it explores the influence of post-materialistic values on goal intention.

The study model questions the ability of the implemental mind-set to promote entrepreneurial goal intention into entrepreneurial self-regulation. Further, it questions the ability of a deliberative mind-set to enhance the influence of post-materialistic values on goal intention. The study presents the full model of the entrepreneurial mind-set including deliberative mind-set, implemental mind-set, and external factor of post-materialistic cultural values. This model addresses several limitations in existing intention models including volition aspects, intention levels, and cultural effect. The chapter concluded with presenting the research questions along with associated hypotheses.

Having looked at the development of the entrepreneurial mind-set model along with suggested hypotheses to predict self-regulation, the following chapter presents the chosen research methodology.

Chapter Five: Research Methodology and Methods

Exploring possible reasons for the entrepreneurial goal intention-action gap shows cultural values and cognitive factors as the main inhibitors for entrepreneurial behaviour. Looking at the context of Saudi Arabia and developing the entrepreneurial mind-set model to address the need for self-regulation as a predictor of action, the next stage is to conduct field work to address the issue empirically.

This chapter first looks at basic assumptions underpinning this study in terms of philosophy. Then, it highlights the research approach, strategy, choice, and data collection method. Further, it explains measurement variables along with testing their validity and reliability. Finally, ethical issues and the process of conducting the survey are discussed.

5.1 Research Philosophy

Research is about developing knowledge where a researcher tends to adopt assumptions about what underlies the nature and the process of developing that knowledge (Saunders et al., 2009). These assumptions refer to the research philosophy. It is crucial to understand the research philosophy as it forms the grounds for choosing the most appropriate method, strategy, and process for the planned research (Crossan, 2003). This section looks at research philosophy assumptions adopted by this study.

The researcher's choice of method depends on "commitments to philosophical positions" (Bryman, 2008, p.161). Thus, philosophical assumptions underpinned the researcher's choice of methods and application of outcomes to various crucial issues in the social sciences (Henderson, 2011). Consequently, the main difference is about the way of knowing and forming different forms of knowledge rather than only methods (Bryman, 2003).

Essentially, there has been a long-lasting debate about two main philosophical positions in social sciences; these are positivism and phenomenology. The positivism position assumes that reality is objective and needs to be known, where subjective bias can be removed (Johnson & Duberley, 2000). Thus, truth is mainly about what people can observe and it is external to researchers (Hussey, 1997; Gray, 2014). Pfeffer (1995) argued that the study of management has been conducted through different disciplines; hence, applying the highly standardised approach of positivism might enable researchers to overcome this fragmentation. Hence, investigating reality requires adopting methods which are not influenced by human factors such as perception and way of thinking (Easterby-Smith et al., 2008). In fact, the positivist view reduces everything to universal principles (Rayan, 2006), thereby assuming unity between natural and social sciences and applying natural science methods to study people (Bryman, 2003). This unity implies the studying of human behaviours using a scientific approach by conceptualisation, operationalisation, and causality (Johnson & Duberley, 2000). Further, positivist researchers aim to verify theories where reality should be observable, value-free, neutral, and objective. In addition, they focus to some extent on prediction and controlling (Ryan, 2006). Consequently, this approach rejects non-observable mechanisms including meanings, interpretations, and subjective understanding. According to Johnson and Duberley (2000, p.26), the “unity of natural and social science is preserved at the expense of human subjectivity”.

The aim of the positivist approach is to explain the phenomena of human behaviours and laws that regulate them. The positivist position further assumes that researcher and subject are independent, whereby cause and effect relationships can be examined, and findings are measured and generalised (Easterby-Smith et al., 2008). Consequently, it is argued that adopting the position of the positivism philosophy in social sciences leads researchers to develop models that enable them to predict human behaviours (Rosenberg, 2005). Further, it

is the most common philosophical approach in business and management studies (Johnson & Duberley, 2000).

The phenomenology philosophy position, however, articulates that perceptions play a vital role in constructing reality. Hence, subject and researcher are interdependent, rather than external from each other. In other words, reality is subjective rather than objective (Zikmund et al., 2012). Consequently, knowledge can be constructed through meanings and interpretation of people instead of by pre-assumed and existing facts (Miller & Brewer, 2003, Gray, 2014).

This study aims to answer the main research question on the factors that bridge the entrepreneurial intention-action gap, and to fulfil the objectives of identifying determinants of goal intention and self-regulation. Further, its objectives include exploring mediators between goal intention and self-regulation as well as the influence of cultural values on goal intention. Hence, the positivist philosophical position would enable the researcher to achieve these objectives for several reasons. First, identifying determinants of goal intention and self-regulation can be investigated through cause and effect relationships and predictions. In this sense, the positivism philosophical position would help the researcher to fulfil the study aim. Second, identifying the direct and indirect effects of cultural values on entrepreneurial goal intention would explore the influence of cultural values on entrepreneurial intention, thus, applying causality and enabling the researcher to generalise these factors among unsupportive cultures. In fact, this has implications for government promotion programmes where management need to understand and deal with their environments more effectively. As stated, in contrast to the interpretivist view, the positivist position is more likely to lead to management implications (Eriksson & Kovalainen, 2008) and more efficient reactions to environments (Johnson & Duberley, 2000).

Third, exploring the mediation effects of the deliberative mind-set and the implemental mind-set would lead the researcher to formulate the entrepreneurial mind-set model. This would enable the researcher to explain the intention-action gap phenomenon and generalise findings among non-entrepreneurs in Saudi Arabia to help them translate their entrepreneurial intention into reality. Consequently, adopting positivism appears to be the most suitable philosophy for the present study.

According to Guba and Lincoln (1994), a paradigm is a basic belief that helps the researcher to identify the ontological position, epistemological position, and method for the phenomenon under investigation. Saunders et al. (2009) emphasised that ontology and epistemology should be identified prior to the method. The ontological position is about how the researcher views the world, how they form their reality, and what they can know about it (Gray, 2014). It reflects the researcher's assumptions about nature and reality (Eriksson & Kovalainen, 2008). A researcher might believe that there is only one reality, which is "assumed" and external from the "social actors" (Saunders et al., 2009). Thus, individuals are independent from the world and reality (Eriksson & Kovalainen, 2008). The ontological position in this case is mainly *objective* (Gray, 2014). However, subjective ontology articulates that reality and human beings are dependent where the influence of meanings and experiences are inevitable (Eriksson & Kovalainen, 2008).

There are four main philosophical paradigms in the social sciences; these are positivism, post-positivism, critical theory, and constructivism (Guba & Lincoln, 1994). The positivism and post-positivism stances are mainly quantitative following scientific methods (Rayan, 2006; Creswell, 2009). The critical theory and constructivism stances are mainly qualitative focusing on patterns and interpretations (Howell, 2013).

The traditional research approaches are positivism and post-positivism. However, the positivism approach has been criticised from several perspectives. First, there are no pure data where neither researchers nor participants have an influence on the process (Hammersley, 1992). Social science is fragmented and it is not possible to separate knowledge from personal experience (Ryan, 2006). Thus, there is a need to avoid looking at researchers and participants as completely independent. Second, the focus on the cause and effect relationship might result in findings that explain very narrow situations rather than the broader complex nature of social phenomena (Johnson & Duberley, 2000). In fact, it is argued that the reality of human behaviours is characterised by diversity and complexity where positivism alone is inadequate to reflect people's real lives. Consequently, the post-positivism position is subsequent to positivism and responds to the need to consider the notion that social science is fragmented, complex, and not value-free (Ryan, 2006; Brand, 2009). Thus, it is stated that "post positivism is fundamentally an extension of rather than a break from the positivist paradigm" (Giddings & Grant, 2007, p.55).

The main difference between positivism and post-positivism is in the assumption of objectivism. The positivism view is that reality exists in the world where the researcher can observe and measure it. Conversely, post-positivists believe that objectivity is impossible as reality is constructed socially and culturally and can be measured. Post-positivism holds a similar view of the cause and effect relationship; however, with a slight difference. In contrast to the positivism view of the linear relationship between cause and effect, the post-positivism position articulates that human beings' behaviours and actions are the result of a complex array of causes that interact together to form outcomes (Giddings & Grant, 2007). Further, experience can be described and tested but human nature needs to be considered. Another difference is that positivism considers *proving* a hypothesis so that theory is universal and generalisable; however, post-positivism considers *supporting* a hypothesis so

that theory is open for verification. Thus, supporting a hypothesis is an indicator of the likeability of a true event (Rayan, 2006). The post-positivism position enables researchers to see the full picture of a situation and incorporate values and meanings into their research. However, the post-positivist believes that outcomes are revisable as there is neither one truth nor universal solution to life problems.

The ontological position for this study is post-positivism. The study addresses the phenomenon of entrepreneurial behaviour. From the cultural perspective, entrepreneurial behaviour might have a reality which is separate from the people who inhabit that reality. For example, supportive cultures seem to result in high levels of entrepreneurial behaviour regardless of the role of individuals. From the entrepreneurial behaviour perspective, however, different versions of such behaviour under comparable cultures indicate human differences. This indicates a partial objective stance; that is, objectivity exists but it is imperfect.

It seems that starting a business in these supportive environments is direct and independent of individuals. However, from the post-positivist perspective, the author views this reality as only a part of the full picture. Hence, he assumes that there is a need to interpret this phenomenon through other possible predictors of entrepreneurial behaviour including cultural values and volitional competencies.

The epistemological position reflects the relationship between a researcher and what he or she believes they can know about reality (Guba & Lincoln, 1994). According to Bryman (2012, p.27), "an epistemological issue concerns the question of what is (or should be) regarded as acceptable knowledge in a discipline". In the case of an objective position, knowledge is to know how things are working regardless of actors' involvement. The researcher and the subject are both independent and objective (Easterby-Smith et al., 2002).

Thus, the researcher neither influences nor is influenced by the subject of the study (Saunders et al., 2009). The researcher in this case applies a method which is not subject to the influence of people's perceptions and interpretations (Easterby-Smith et al., 2002). However, Saunders et al. (2009, p. 104) emphasised that "complete freedom from the inclusion of our own values is impossible" when post-positivism comes into the picture.

The researcher develops hypotheses, identifies relationships, highlights causes and effects, and generalises findings. This way of viewing the phenomenon of entrepreneurial behaviour seems to be independent of the researcher and can be observed and performed objectively. However, the researcher believes that it is impossible to complete this in a completely value-free way. Imperfect understanding of the entrepreneurial behaviour phenomenon may result from human factors; hence, the researcher is not completely independent of the study subject.

In the early stages of the research, in order to explore entrepreneurship in Saudi Arabia, the researcher consulted several government plans, studies and reports about entrepreneurship in Saudi Arabia. These reports and plans include the Global Entrepreneurship Monitor (2009, 2010) and The Ninth Development Plan (NDP, 2010). In addition, the researcher identified several studies on entrepreneurship in Saudi Arabia dealing with the characteristics of Saudi entrepreneurs (Skoko, 2011), entrepreneurial culture in Saudi Arabia (Hamid, 2012), and information from The World Economic Forum Report (WEF, 2014). The researcher further consulted several reports of funds and institutions supporting entrepreneurship in Saudi Arabia including the Saudi Industrial Development Fund (SIDF), Human Resources Development Fund, Centennial Fund, Saudi Credit and Saving Bank, Saudi Arabian General Investment Authority (SAGIA), Saudi Industrial Property Authority (MODON), BADIR for technology incubators, INJAZ for youth entrepreneurship, and the KAFALAH programme. Thus, consulting such studies and reports reflects the partial independence between the researcher and the research.

The human factor influence can be salient as participants used Likert scales to evaluate their motivations, abilities, commitments, and volitional competencies. Further, although the study scope is about the entrepreneurial goal intention-action relationship, the researcher's belief about the importance of role of the human factor encouraged him to explain the phenomenon within the Saudi Arabian context. Consequently, the ontological and epistemological positions of this study are grounded in post-positivism.

To summarise, the researcher's philosophy here is post-positivism. This stance articulates that realities do exist, albeit imperfectly due to the human factor (Saunders et al., 2009). Thus, observations can be fallible, where truth is inferred rather than explained perfectly (Gray, 2014). Researchers may influence the study through the selections they make such as subject, objectives, and which data to gather (Saunders et al., 2009). In the social sciences, researchers develop models to predict human behaviours, measure outcomes, and generalise findings (Eriksson & Kovalainen, 2008); they test causes, effects and hypotheses (Creswell, 2014). However, in order to understand human behaviour in the business domain, people's perceptions and interpretations may influence the study (Johnson & Duberley, 2000). The researcher believes that entrepreneurship is a phenomenon where he can observe, apply theories, and generalise results. This might indicate a positivism position; however, the researcher believes that human factors can influence the study. This influence can be from two perspectives – those of the researcher and those of the participants. The former may affect the study through selecting the subject, collecting data, and interpreting information. The latter may affect the study through understanding and answering questions.

5.2 Research Approach

There are two main research approaches – deductive and inductive. The two main approaches explain the relationship between theory and research. As far as the *deductive* approach is

concerned, based on what is known in the field, the researcher suggests hypotheses from theories and conducts the research to test them (Bryman, 2012). These hypotheses are suggested propositions which reflect the relationship between variables. Then, the way of measuring the quantified variables is specified, namely, operationalisation. The result of measurement is used to test the theory (Saunders et al., 2009). Further, it is argued that the deductive approach is the most common approach to acquire knowledge in the social science domain (Eriksson & Kovalainen, 2008).

As far as the *inductive* approach is concerned, the researcher generates theory from the research findings. In this case, the consequence of research is theory (Bryman, 2012). The advantages of the inductive approach include the ability to understand people's ways of thinking about the world, flexibility among explanations of phenomena rather than limited alternatives, and reflecting the research context (Saunders et al., 2009).

The arguments about research approaches do not imply the superiority of one approach over the other. As stated by Saunders et al. (2009, p.127), it is possible to combine deductive and inductive approaches in the same research. However, the choice of research approach might depend on the research aims. According to Easterby-Smith et al. (2008), to understand the reason behind a phenomenon, the inductive approach is more appropriate than the deductive one; however, in order to describe what is occurring about a phenomenon, the deductive approach is more suitable. This research aims to identify self-regulatory factors at different action phases and how they interact with cultural values. Thus, it describes what factors underlie the processes of goal setting and goal striving. Following the argument of Easterby-Smith et al. (2008), the deductive approach is appropriate for this form of research.

Adopting the deductive approach, this study refers to several theories to conceptualise the research model of the entrepreneurial mind-set. The study starts by exploring the possible

reasons behind the intention-action gap using social cognitive theory (Bandura, 2001). This identifies two main causes - *cognition* and *environment*. The former factor is further explored within the cognitive process of action phases, represented by the Rubicon Model (Heckhausen, 1986, 1991). At the pre-decision phase, people regulate their wishes and needs by formulating goal intention using goal theory (Locke & Latham, 2006). At the pre-action phase, the theory of action control postulates that people maintain their intention and regulate competing desires using self-regulation. The self-regulation mechanisms include implementation intention by the theory of implementation intention (Gollwitzer, 1993), action orientation by the action control theory (Kuhl & Beckmann, 1984), coping with failure by the coping theory (Lazarus & Folkman, 1984), and optimism by the model of behavioural self-regulation (Scheier et al., 1994). These theories generate hypotheses for several causal relationships between variables which are quantified and are measured by structured survey.

In summary, this study adopts the deductive research approach to investigate the entrepreneurial intention-action gap in Saudi Arabia. Based on what is known in the entrepreneurship field about predicting entrepreneurial behaviour, the present research attempts to explain the process or processes underlying the forming of entrepreneurial intention. Further, it draws on existing theories and models about cultural values as well as the link between entrepreneurial intention and action. Consequently, the study develops an entrepreneurial mind-set model to address the gap in knowledge about furnishing entrepreneurial intention with self-regulation. Having identified the research approach as deductive, the next section looks at the research design.

5.3 Research Design

Research design presents a framework for data collection and analysis (Bryman, 2012). According to Robson (2002), research design is a process of transforming a research question

into a project. Hence, it is a plan that researcher uses to answer the research question(s) which includes research strategy, time horizon, and choice of collection techniques and analysis procedures (Saunders et al., 2009). The following sections explain the present research design through strategy, choice, and time horizon.

5.3.1 Research Strategy

Research strategy refers to “a general orientation to the conduct of social research” (Bryman, 2012, p.35). It is argued that there is no one superior research strategy over others. However, the main important selection criteria include reflecting the research philosophy, enabling the researcher to answer research question, achieving research objectives, and matching resources limits and time (Saunders et al., 2009).

As far as reflecting the research philosophy is concerned, this research adopted the **post-positivism** philosophy with assumptions that facts and measures along with human factors are important. The researcher believes that knowledge can be acquired by describing what is happening about the entrepreneurial behaviour phenomenon in Saudi Arabia. This leads to implementing the deductive approach based on facts, theories and measures. According to Saunders et al. (2009), the deductive approach is usually linked with survey strategy. Hence, this survey quantifies and measures variables to describe the entrepreneurial behaviour phenomenon. These variables include post-materialistic values, desirability, feasibility, entrepreneurial self-efficacy, entrepreneurial goal intention, implementation intention, optimism, action orientation, coping with failure, and self-regulation.

As far as the research is concerned, the main question for this study is, *what are the factors that bridge the entrepreneurial intention-action gap?* The causal relationships between post-materialistic values, entrepreneurial mind-sets, and self-regulation form the research model.

This model focuses on identifying self-regulation determinants along with their interplay with cultural values. The explanatory part of the study is to find the causal relationships between variables. This reflects the quantitative part where survey strategy of structured questionnaire is constructed. The strategy to answer such type of questions is often survey strategy.

As far as research objectives are concerned, the research objectives include identifying determinants of goal intention at the pre-decision phase and determinants of self-regulation at the pre-action phase. Further, objectives include exploring the influence of post-materialistic on goal intention at pre-decision phase and the mediating role of mind-sets. To achieve these objectives, literature has suggested several factors and volitional competencies which increase self-regulation. These factors include goal setting, implementation intention, optimism, coping with failure, and action orientation. This suggests that there are causal relationships between entrepreneurial goal intention and self-regulation through these factors. According to Collis and Hussey (2009), survey strategy is defined as a methodology which investigates a sample of subjects extracted from a population. Such investigation is about the cause-effect link among dependent and independent variables under controlled conditions. Thus, a survey strategy is implemented in this study to fulfil the aim and objectives.

5.3.2 Time Horizons

This study was conducted as a “snapshot” of the current situation of entrepreneurship in Saudi Arabia as data collection lasted for almost four months. Cross-sectional research frequently applies the survey strategy (Robson 2002; Easterby-Smith et al., 2008). The cross-sectional research refers to studying a specific phenomenon at a specific time (Saunders et al., 2009). According to Bryman (2012), survey research is a cross-sectional design where data are collected about more than one case and at a single point in time for two or more variables. Hence, this study is cross-sectional using the survey strategy.

The study addresses the concerns of converting entrepreneurial intention into action. Hence, conducting a longitudinal study could be more appropriate; however, the longitudinal time horizon is not practical for the present research for two main reasons. First, the researcher is located in the UK whereas the study population is located in Saudi Arabia. Thus, conducting longitudinal study could be costly and time consuming. Second, the study assumes self-regulation as the most proximal predictor of action. Hence, measuring entrepreneurial behaviour can be outside the study scope. Consequently, the researcher acknowledges these as limitations and suggests them for future research.

5.3.3 Research Choice

Research choice refers to the combination of data collection techniques and analysis procedure(s) (Saunders et al., 2009). Qualitative and quantitative research approaches are different in term of data collection techniques and analysis procedure. According to Bryman (2012), quantitative research stresses quantification in the data collection and analysis whereas qualitative research underlines words instead of quantification in the data collection and analysis. For example, qualitative research may apply the questionnaire technique to collect numerical data and use a statistical analysis procedure. However, quantitative research may collect non-numerical data using the interview technique (Saunders et al., 2009).

The research underpinned by the **post-positivism** philosophy must apply data collection methods that “fit the subject matter, quantitative or qualitative” (Saunders et al., 2009, p.119).

This study adopts the quantitative research technique for several reasons. First, this research paradigm is post-positivism; Giddings and Grant (2007) argued that this paradigm supports the quantitative approach. Second, this study formulated the entrepreneurial mind-set model which intends to measure self-regulation determinants that bridge the intention-action gap. The study applies quantitative measures which have been proven robust and published in high-ranking journals. Third, the quantitative technique is common in the two main subjects

of this research - *entrepreneurial intent* and *entrepreneurial action* (Chen et al., 1998; Krueger et al., 2000; Zhao et al., 2005; Alfons et al., 2012; Kautonen et al., 2013; Bullough et al., 2014; Van Gelderen et al., 2015). Finally, Kuhl and Fuhrmann (1998), the founders of the self-regulatory process which represents one of the grounding for this research, designed the Volitional Competencies Questionnaire (VCQ) to measure volitional skills including self-regulation. This scale proved to be the most popular measure in the domain (Ilouga et al., 2014). Having confirmed the survey strategy and quantitative research choice, the next section explains the data collection technique.

5.3.4 Data Collection Technique

According to Collis and Hussey (2009), data collection techniques for survey strategy include questionnaires and interviews. The questionnaire is “a collection of questions administered to respondents. When used on its own, the term usually denotes a self-completion questionnaire” (Bryman, 2012, p.715). The questionnaire is used to obtain insight on the relationships among different variables (Saunders et al., 2009). It provides various responses to standardised questions and, hence, different meanings (Bryman, 2012).

The self-completion questionnaire is an online survey which has additional advantages over other types of questionnaire such as postal questionnaires. These advantages include lower administration cost, faster returned responses, more formatting styles and features, unlimited coverage, less missing data, and fewer data to enter. However, it is argued that one of the main disadvantages of online questionnaires is a lower response rate (Bryman, 2012; Rea & Parker, 2012). Such disadvantage might be due to restrictions on online population and having different emails.

The researcher selected the online questionnaire as the data collection technique. The research population is in Saudi Arabia which makes interviews difficult to conduct, time consuming, and costly. Bryman (2012) stated that the self-completion questionnaire has

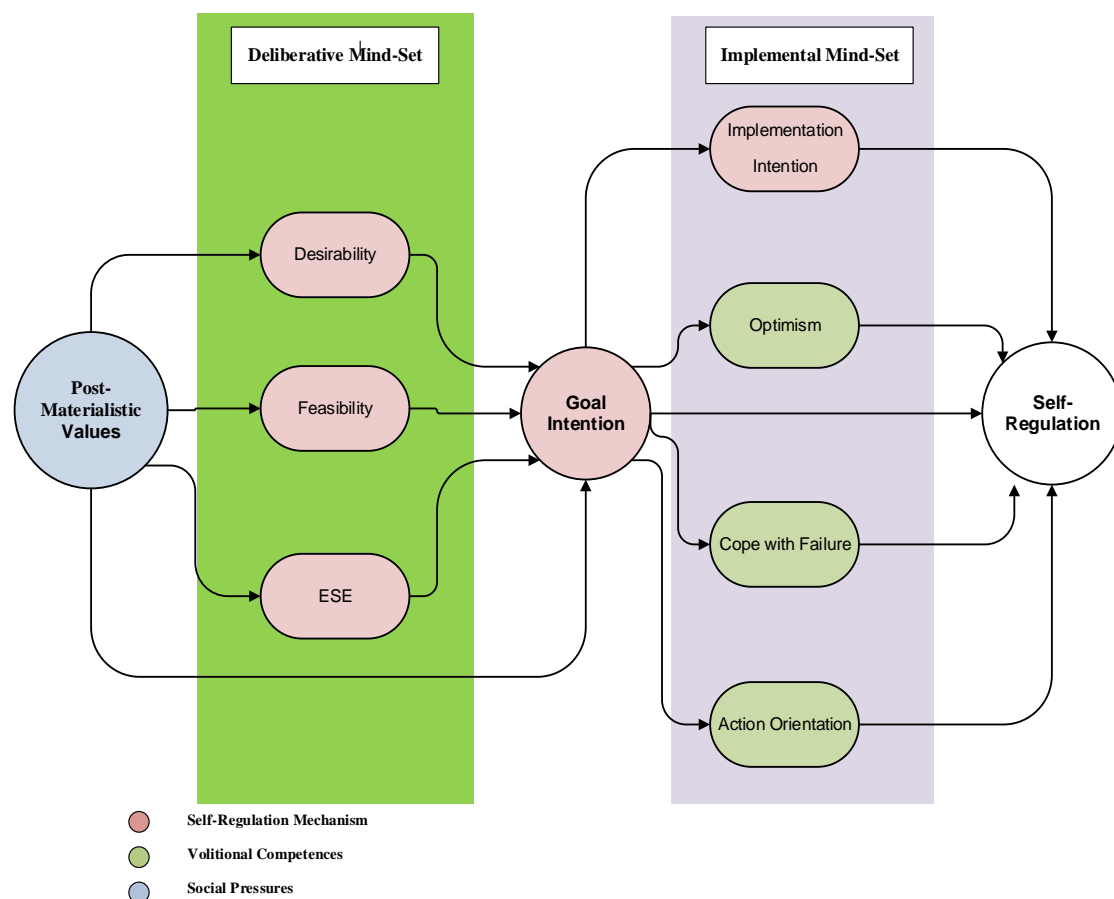
several advantages over structured interviews including minimising cost, being able to send in large quantities, eliminating interviewer bias and variability, and increasing respondents' convenience. It is further argued that the online survey can get faster responses and reduce cost (McDonald & Adam, 2003; Van Selm & Jankowsky, 2006; Rea & Parker, 2012). Online survey can help to ease data processing, handling, and analysing (Sills & Song, 2002). In case of non-response, using the online survey is easier to follow up through reminder emails (Rea & Parker, 2012)

The online questionnaire can be conducted through email survey or web survey. There are two types of email survey –embedded and attached email questionnaire surveys (Bryman, 2012; Hewson, 2003). The web survey might be conducted via directing participants to a website where they can find and respond to survey. In the present study, a hyperlink of a web-based survey directed participants to Qualtrics where the survey could be completed. Using Qualtrics can eliminate manual data entry, hence saving time and reducing errors. Pitkow and Recker (1995) asserted that web-based surveys have several advantages such as processing data electronically, completing the survey conveniently, and presenting the survey attractively. However, it is argued that the web-based survey might suffer from confidentiality issues; however, this may be tackled through informing participants that the study deals with their email addresses anonymously (Van Selm & Jankowsky, 2006). In the present study, companies' contact persons forwarded the researcher's email to their employees which ensured confidentiality.

Bryman (2012), however, argued that online surveys have several disadvantages; for example, participants might have several email addresses, different internet service providers, and various users (householders). In addition, internet samples might have few sample frames and biased users (Bryman, 2012). The online survey issues have been reduced in this study by conducting the survey via organisations' emails rather than personal emails. This approach

has reduced the highlighted problems of the online survey. In the case of online population sampling, organisations' employees are most likely to be computer literate with online accessibility.

The questionnaire explores the cause-effect relationships among cultural values, mind-sets, entrepreneurial goal intention, and self-regulation. All instruments and measures are extracted from high-quality journal studies to ensure reliability and validity. Reconsidering the research model (Figure 19),



The questionnaire instruments of desirability, feasibility, and entrepreneurial self-efficacy have been implemented to investigate the determinants of goal intention at the pre-decision phase. This fulfils the objective and answers the research question relating to identifying the determinants of goal intention.

The questionnaire instruments of post-materialistic values and entrepreneurial goal intention have been implemented to investigate the direct relationship between both constructs and the indirect relationship through desirability, feasibility, and entrepreneurial self-efficacy. This fulfils the objective and answers the research question relating to identifying the effects of post-materialistic values on goal intention.

The questionnaire instruments of entrepreneurial goal intention and self-regulation have been implemented to investigate the direct relationship between both constructs. The questionnaire instruments of implementation intention, optimism, coping with failure and action orientation have been implemented to investigate the indirect relationship between entrepreneurial goal intention and self-regulation. This fulfils the objectives of identifying self-regulation determinants within implemental mind-set. Hence, it answers the research questions of the self-regulation determinants relating to the implemental mind-set and the ability of the implemental mind-set to mediate the relationship between goal intention and self-regulation.

5.3.5. Survey Population

The survey population is national employees in the private sector in Saudi Arabia for several reasons. First, the main research question for this study is about the factors that bridge the entrepreneurial intention-action gap. Hence, business owners are excluded. Second, it is illegal for public sector employees in Saudi Arabia to start their own business; hence, the study excluded public sector employees. Third, only Saudi nationals are permitted to own a private business; hence, non-Saudi nationals are excluded. Finally, students are not yet the working field yet; hence, their inputs might not be as definitive as those of employees.

According to the Saudi Central Department of Statistics and Information (SCSD, 2015), the total population in Saudi Arabia is 30 million (m). The total labour force (15 years and above) in Saudi Arabia is 11.9m out of which nationals account for 5.6m. The number of Saudi

males working in the private sector is 1.0m (73%) compared to 0.4m (27%) females. Consequently, the survey population is the Saudi nationals working in the private sector in Saudi Arabia. According to The Ministry of Labour (2013), the number of Saudi nationals working in the private sector is 1.4m compared to 3.6m working in the public sector.

5.3.6. Sampling Frame

The number of Saudi nationals working in the private sector is 1.4m over all the regions of Saudi Arabia. However, it would be impossible to approach such a huge number. Hence, to approach Saudi private sector employees in Saudi Arabia, it is crucial to identify a sampling frame. To reduce the huge number of 1.4m in all regions, the study considers only the large and huge private sector establishments. The Ministry of Labour classified private establishments into three groups, namely, very small, small, and large. The numbers of employees are 1-4, 5-19, and 20+, respectively (Ministry of Labour, 2013). Hence, the total number of national employees dropped from 1.4m to 587,641 (large and huge establishments) as given in Table 7.

Table 7 Private Sector National Employees in Different Establishments Sizes

Very Small 1-4	Small 5-19	Medium	Large 20+	Huge	Total Employees
147,308	311,232	420,672	294,549	293,092	1,466,853

However, the total number of large and huge establishments in Saudi Arabia is 4633 scattered across 13 administrative areas (Ministry of Labour, 2013). Consequently, the study considers the most established large and huge companies in Saudi Arabia. In 2007, the Saudi government established the Saudi Stock Exchange Company (Tadawul) to regulate the Saudi stock market. The major three initial conditions which qualify a company to be listed in the

market are a minimum of three years of trading under the same management; three years audited financial statements; and sufficient working capital for the next one year. The study considers these conditions as a sign of well-established companies. In addition, the listed companies have varieties in regions, industries, and number of employees from as low as 62 to more than 20,000. For example, the numbers of employees range from 62 for the Dur Hospitality Company to 112 for the Amanah Insurance Company, 697 for Middle East Cables, 1,545 for Rabigh Refining, and 22000 for Safola Company. Further, the variations in industries are given in Table 8 (TADAWUL, 2014).

Table 8 Listed Companies per Industry

Industry	Number of Companies (2014)
Insurance	35
Agriculture and Food	16
Building and Construction	17
Petrochemical	14
Industrial Investment	14
Cement	14
Banks and Financial Services	12
Retail	14
Real Estate Development	8
Multi-Investment	7
Telecommunication and Information Technology	5
Transport	4
Media and Publishing	3

Hotel and Tourism	4
Energy and Utilities	2
Total	169

Consequently, the sample frame of the study includes Saudi private sector employees working in the listed companies. The study implemented a random sampling technique among 169 listed companies in the Saudi Arabia stock market (TADAWUL). The sample frame process is represented in Figure 20.

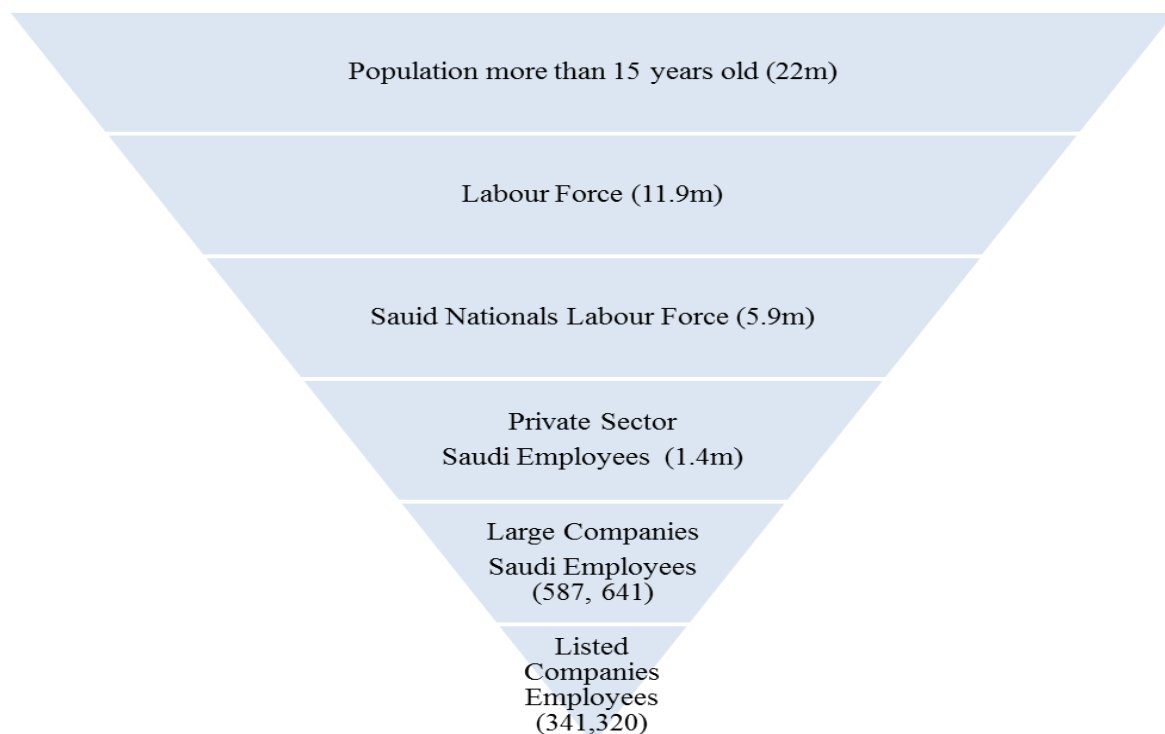


Figure 20 Research Sample Frame Process

5.3.7. Sample Size

It is argued that sample size is to be large enough to ensure an acceptable level of confidence in data and margin of error. Hence, it is vital to estimate the response rate and increase sample size accordingly (Saunders et al., 2009). Using the sample sizes for higher than 100

000 populations at a 95-confidence level, the minimum sample size is 384 (Saunders et al., 2009).

The study used the following formula to calculate the *actual* sample size

$na = (n \times 100) / re\%$ <p>na=actual sample size n=minimum sample size re%=estimated response rate</p>

The *response rate* in the study is estimated by the relevant studies in the entrepreneurship field. Some studies in the entrepreneurship field have used sample sizes which range from 1000 participants with 40% response rate (Moghavvemi & Salleh, 2014), 1058 participants with 13.3% response rate (Pruett et al., 2009), 1301 participants (Van Gelderen et al., 2008) with full (100%) response rate due to using class time for students, and 1600 participants with 24.9% response rate after two reminders (Koe et al., 2014). On average, the response rate in these studies ranges from 13.3% to 40% with an average of almost 26%. Hence, in the case of 26% expected response rate and 384 minimum sample size,

$$\text{Actual sample size} = (384 \times 100) / 26 = 1,477$$

This actual sample size of 1477 is within the range of the mentioned field studies ranging from 1000 participants to 1600.

5.3.8. Sampling Technique

Deductive researchers suggest hypotheses from existing theories and conduct research to test them and generalise results among the target population (Bryman, 2012). However, Johnson and Duberley (2000) argued that there are several threats that might hamper generalisability in research. These threats include conducting research at a particular time, with different people, and in different contexts. Hence, it is suggested that probability sampling overcomes

these threats by identifying a representative sample and using statistics to generalise the outcomes. Probability sampling, known also as random and chance sampling, implies that every item of the population has an equal chance to be included in the sample (Kothari, 2004). Thus, if the researcher chooses a random sample successfully, it reflects the same characteristics of the entire population.

Some researchers however aim to explore a phenomenon among a particular group or reach individuals who are difficult to locate. In this case, generalisation is not the ultimate purpose and this type of phenomenon is not generalisable among large populations (Coviello & Jones, 2004). Consequently, it is not possible to know the probability of each subject and, hence, probability sampling is not needed (Yeung, 1995). As a result, non-probability sampling is more appropriate. Non-probability sampling, known also as purposive and judgement sampling, refers to a “sampling procedure which does not afford any basis for estimating the probability that each item in the population has of being included in the sample” (Kothari, 2004, p.59).

The present research is deductive and explanatory where the researcher adopts several existing theories from two main disciplines – entrepreneurship and psychology. It aims to bridge the entrepreneurial intention-action gap in Saudi Arabia and generalise the findings among non-entrepreneurs. The intention-action gap phenomenon is salient in Saudi Arabia rather than rare and the government promotes entrepreneurship to satisfy the need for more entrepreneurs. These conditions make probability sampling more appropriate to fulfil the aim of this research. Further, as stated by Saunders and colleagues (2009), probability sampling can be used in cases where data cannot be collected from the entire population, where statistical inferences have to be concluded from the sample, and where there is a proper

sampling frame. In this study, data cannot be collected from the entire population of 1.4 million Saudi employees in 13 local administrative areas. In addition, the study aims to draw statistical inferences about the influence of cultural values and mind-sets on entrepreneurship in Saudi Arabia. Furthermore, there is a suitable sample frame of all private-sector Saudi employees working in listed companies.

To assure a representative sample, each member of the population should have non-zero probability to be included in the sample (Kalof, 2008). This is assured by applying a completely random sample technique using tables or computer random generator in quantitative research – namely, simple random sampling (Coviello & Jones, 2004). Conversely, purposefully selecting participants infers that “qualitative researchers select individuals who will best help them understand the research” (Creswell, 2014, p.260). This research adopts simple random sampling to assure a representative sample from the entire population of non-entrepreneurs in Saudi Arabia.

Consequently, the researcher has taken several practical steps to reach the random sample. First, the researcher selected participant companies randomly. The Saudi Stock market companies (Appendix B) were listed in alphabetical order. Then, a computer random-number generator was used to generate 30 numbers without duplication between 1 and 169, which is equivalent to the total number of companies listed in the Saudi Stock Market. [Following the suggestion of Bryman (2012, p. 192), the source of the computer random-number generator is the website <http://www.psychicscience.org/random.aspx>.] Second, the researcher established communication with the 30 randomly selected companies by sending a supporting letter via email to obtain their agreement to participate in the study. Third, the participant employees were selected randomly as the researcher requested that each of the 30 companies disseminate the survey link randomly to 50 national employees. Thus, each company was

asked to arrange the employees' names alphabetically and then send the link to every other employee. The researcher emphasised in the letter that participation was completely voluntarily, anonymous, and confidential.

One of the disadvantages of random sampling is that sampling error might occur by chance (Bryman, 2012). For example, in the present research, some of the companies that were selected randomly via the computer random generator might have more males than females, or even no females. Further, some random selection might include a particular age range more than others. However, the study tackled this concern by making gender, age, and education constant through the analysis stage, which reveals that there is no effect of demographics on findings.

Another issue about random sampling is the cost of acquiring a large sample. According to Kothari (2004), in order to decide on the sampling procedure to use, the researcher should consider two main costs – the cost of data collection and the cost of incorrect inferences resulting from the data. As far as the cost of collecting the data is concerned, the researcher is located in the UK whereas the target sample is in Saudi Arabia. This might incur high cost in the data collection stage. However, the researcher minimised this cost by administering an online survey rather than holding face-to-face interviews. Further, data collection with companies was conducted through contact persons for each participating company rather than dealing with participants individually. This has reduced the cost and time for collecting data from the sample.

Concerning the cost of incorrect inferences resulting from the data, Kothari (2004) argued that this can result from an unsuitable sampling frame, unreliable measuring instruments, and non-respondents, thereby leading to systematic bias. In case of probability sampling, it is

possible to achieve a lower sampling error and control for systematic bias. However, in the case of purposive sampling, as it is not possible to know the possibility that each item is going to be chosen, the sampling error cannot be calculated and systematic error is always there. This study uses listed companies in the Saudi Arabia stock market as the sampling frame. In fact, this stage of sampling planning has enabled the researcher to cover a diversity of companies in terms of size, industry, and region. The reliability of measuring instruments has been tackled by using scales from high-ranking journals as well as applying reliability statistical tests. As far as non-response is concerned, the researcher applied different approaches such as pilot testing, follow-up emails, follow-up phone calls, and finally face-to-face visits. These approaches have resulted in a reasonable response rate of 27%.

In summary, the sampling approach in this study is random sampling rather than purposive sampling for several reasons. First, the study is explanatory with a deductive approach instead of exploratory-inductive. Hence, random sampling enables researchers to generalise findings about a large population rather than studying one particular group extensively. Second, the stages of identifying the population, sampling frame, and sample are mainly influenced by the labour laws in Saudi Arabia rather than by the researcher's judgement. In other words, it is not the choice of the researcher to satisfy the study purpose. For example, the labour laws in Saudi Arabia do not allow public-sector employees and non-national individuals to own their business. Hence, the population is private-sector national employees in Saudi Arabia. Further, the practical steps of choosing participant companies and employees were taken randomly. Consequently, this random sampling approach enabled the researcher to fulfil the aim of the research to generalise the findings among non-entrepreneurs in Saudi Arabia.

The cover letter (email body) can play a vital role in enhancing response rate by including several statements (Rea & Parker, 2012). The first statement highlights the purpose and importance of the study as well as reducing any possible concerns participants may voice. The second statement indicates the importance and usefulness of respondents' participation. The third statement assures participants' confidentiality, anonymity, and safety (Saunders et al., 2009; Bryman, 2012; Rea & Parker, 2012). In addition, potential participants are assured that their participation is valued, which means that there are no right or wrong answers.

To increase credibility of the survey, it is suggested that the sponsor of the study is specified. As stated by Rea and Parker (2012, p.39), "a great deal of credibility can be gained for the study if the sponsor is a governmental body that in some way represents the respondent". Further, the letter should include reasons for including participants in the study sample as well as the study motivations and implications. Finally, the target date for returning the survey should be specified. Rea and Parker (2012) suggested that the email message about the proposed online survey should state a deadline of 10 days to return the completed survey. The researcher sent the email to companies, stating the study purpose, importance, and usefulness of participation. Further, it emphasised confidentiality, anonymity, and safety. It indicated that the study is about the crucial subject of enhancing entrepreneurial activity in **Saudi Arabia where private-sector employees can add value to the study.**

5.4 The Research Questionnaire Design

The research questionnaire consisted of closed-ended questions to tackle the main constructs of cultural values, deliberative mind-set, implemental mind-set, entrepreneurial goal intention, and self-regulation. This type of question offers a set of choices from which participants can select. These choices are presented in a Likert scale which enables participants to express their perceptions by selecting the most applicable answer for this. Further, it is a simple and easy scale to use. Hence, it is believed that the Likert scale is widely preferred and

implemented by researchers (McNabb, 2013; Monette, 2013). From researchers' perspective, the Likert scale is helpful in terms of data collection, interpretation (Zikmund et al., 2012; Collis & Hussey, 2009), and easy construction (Ghuman, 2010). The Likert scale might range from five to 10 points from which respondents can choose. In this study, the researcher has implemented the five-point Likert scale as some argued that a Likert-type scale which has more points does not add reliability (Madu, 2003) or more advantages (Dawes, 2008).

Based on the required measurements, the questionnaire is divided into five main sections. These sections comprise deliberative mind-set, implemental mind-set, self-regulation, post-materialistic values, and demographics (Appendix C). The deliberative mind-set section has four sub-sections; these are desirability, feasibility, entrepreneurial self-efficacy, and goal intention. The implemental mind-set section has four sub-sections; these are implementation intention, optimism, coping with failure, and action orientation. The questionnaire structure is given in Table 9.

Table 9 Questionnaire Structure

Section	Sub-section	Type of Question
Post-Materialistic Values		Close-ended with five-point Likert
Deliberative Mind-set	Desirability	Close-ended with five-point Likert
	Feasibility	Close-ended with five-point Likert
	Entrepreneurial	Close-ended with five-point Likert
	Self-Efficacy	Close-ended with five-point Likert
	Goal Intention	
Implemental Mind-set	Implementation Intention	Close-ended with five-point Likert
	Optimism	Close-ended with five-point Likert
	Coping with Failure	Close-ended with five-point Likert
	Action Orientation	Close-ended with five-point Likert
Self-Regulation		Close-ended with five-point Likert
Demographics	Gender	Close-ended with multiple options
	Age	Close-ended with six options
	Education	Close-ended with four options

The deliberative mind-set section enabled the researcher to identify determinants of goal intention. The post-materialistic values section and goal intention section enabled the researcher to measure the effect of post-materialistic values on goal intention. The

implemental mind-set section along with the sections of goal intention and self-regulation facilitated identification of the role of implemental mind-set factors.

The questionnaire comprised eight pages, with each page including questions with a maximum of three sub-sections. The first page included questions about desirability and feasibility. The second page addressed entrepreneurial self-efficacy, while the third page included questions about entrepreneurial intention and implementation intention. The fourth page included questions about coping with failure and action orientation. While the fifth page comprised questions about optimism, the sixth page investigated self-regulation. The seventh page included questions about post-materialistic values whereas the last page asked demographic questions. As far as the questionnaire length is concerned, Zikmund et al. (2012) argued that a questionnaire should not exceed six pages; otherwise, the researcher should offer an incentive to encourage participants to return the questionnaire. This study's questionnaire is eight pages, hence, an incentive report about entrepreneurial behaviour is offered to the companies on completion of the thesis.

5.5 Translating the Questionnaire

As the study is conducted in Saudi Arabia, it was vital to translate the questionnaire into Arabic to reach the highest possible number of participants. However, it is important to ensure that translation does not alter the questions' meanings. Hence, the researcher had the questionnaire translated from English to Arabic by a professional translation office in Saudi Arabia where the translated questionnaire was further reviewed and stamped. In addition, the researcher has reviewed the Arabic version to ensure that it can be understood and that the same meanings are clear.

Another step to ensure that the original and translated versions convey the same meaning is called back translation. In this respect, it is argued that back translation involves translating a

questionnaire from one language to another by a translator and then translating it back to the original language by a different translator (Zikmund et al., 2012). Hence, in order to ensure the same meanings of the research concepts, the researcher recruited *another* professional translation office in Saudi Arabia to translate the Arabic version of the questionnaire back to English by These steps took place before activating the questionnaire in Qualtrics.

5.6 Measurement Variables

There are several variables which constitute the research model; these are post-materialistic values, desirability, feasibility, entrepreneurial self-efficacy, entrepreneurial goal intention, implementation intention, optimism, coping with failure, action orientation, and self-regulation.

The independent variable for this research is *post-materialistic values* which might directly/indirectly affect entrepreneurial goal intention. Thus, it is expected that there are mediating variables between post-materialistic values and entrepreneurial goal intention – desirability, feasibility, and entrepreneurial self-efficacy.

Self-regulation is the *dependent variable* which might be directly/indirectly influenced by entrepreneurial goal intention. Hence, it is expected that there are mediating variables between entrepreneurial goal intention and self-regulation; these are implementation intention, optimism, coping with failure, action orientation. The summary of all variables is given in Table 10.

Table 10 Measurement Variables

Independent Variable	Mediating Variables	Dependent Variables
Post-materialistic values	Desirability	Self-Regulation Entrepreneurial Goal Intention
	Feasibility	
	Entrepreneurial Self-Efficacy	
	Implementation Intention	
	Optimism	
	Coping with Failure	
	Action Orientation	

5.6.1 Independent variable

Post-materialistic value is the independent variable which is expected to influence entrepreneurial goal intention directly or indirectly. To find a measuring instrument for such a variable, the researcher consulted previous studies which were published in high-ranking journals (Inglehart & Abramson, 1994, 1999; MacIntosh, 1998; Uhlaner et al., 2002; Morales & Holtschlag, 2013). One of the major implemented measures of post-materialistic values is a five-item scale (Inglehart & Abramson, 1994). These items are given in Table 11.

Table 11 Post-Materialistic Values Measure

Measure	Source
Giving the people more say in important government decisions.	Inglehart and Abramson (1986, 1994)
Protecting freedom of speech.	
Give people more say in how things are decided at work and in their community.	
Move toward a friendlier, less impersonal society.	
Move toward a society where ideas count more than money.	

The choice of post-materialistic values as a measure for culture is made for several reasons. First, the aim of this study is to bridge the entrepreneurial intention-action gap in Saudi Arabia. Thus, the main concern is taking actions which translate intention into reality. Consequently, the research follows the arguments that identify values as the driver of actions (Halman & De Moor, 1994) and effective forces enabling people to direct and control their behaviours (Halman & De Moor, 1994; Mueller & Thomas, 2001). According to Lock (1991, p. 291), the “ultimate evidence for what a person values lies in their actions”.

Second, the self-regulatory process (Kuhl & Beckmann, 1985) highlights the relationship between values and intentions. The self-regulatory process articulates that people tend to store their values, wishes, and norms in their long-term memory in the form of action-related structures. As soon as there is a match with a currently encoded situation, they activate these action-related structures in intentional format. Then, intentions will progress to working memory only in the case of commitment. This indicates the importance of values in the process of formulating intention and carrying out the intention through self-regulation.

Third, as far as Saudi Arabia is concerned, the dominant justification of low entrepreneurial activity in Saudi Arabia is due to value changes during the ‘years of plenty’ (Tomlinson, 2007; GEM, 2009, 2010; NDP, 2010; Skoko, 2011; Hamid, 2012). As the economic conditions change from scarcity to wealth, the new generation that experienced abundant economic conditions during pre-adulthood develop post-materialistic values of higher-order needs. As a new generation replaces the old generation, values change from materialistic values to post-materialistic values (Inglehart, 1977, 1990; Morales & Holtschlag, 2013). This indicates that post-materialistic values may reflect the type of values that inhibit entrepreneurship activity in Saudi Arabia.

Finally, following the argument that entrepreneurs are more materialistic and that a society with fewer materialistic individuals will have fewer entrepreneurs (Uhlener & Thurik, 2007), the influence of cultural values on entrepreneurial activity was highlighted in some of the studies in the entrepreneurship domain from both individual and national perspectives (Uhlener et al., 2002; Inglehart, 2008; Holtschlag, 2013). However, the entrepreneurship field lacks studies about materialism/post-materialism values. As stated by Morales and Holtschlag (2013, p.269), “if research into the determinants of entrepreneurship is scarce as far as cultural issues are concerned, it is even scarcer when it comes to the role of post-materialistic values play in entrepreneurship”. Hence, based on the aforementioned grounds, the present study has chosen post-materialistic values to reflect the culture aspect in studying the entrepreneurial intention-action gap in Saudi Arabia.

This research has considered cultural measures other than post-materialism values. First, several studies have implemented Hofstede’s dimensions as cultural measure in examining the relationship between culture and entrepreneurship (Mitchell et al., 2000; Mueller & Thomas, 2000; Thomas & Mueller, 2000). Some of these dimensions include individualism, power-distance, uncertainty avoidance, and masculinity (Thomas & Mueller, 2000). However,

this measure was criticised as being too broad, not relevant to entrepreneurship, not static, and originally reflecting the formal organizational environment (Hayton et al., 2002). This study aims to bridge the entrepreneurial intention-action gap in Saudi Arabia. Hence, applying Hofstede's dimensions as cultural measure would generate too broad a view of cultural values in Saudi Arabia, which might not be relevant to entrepreneurial intention and actions.

Second, another alternative of culture measure is the country institutional profile model (Busenitz et al., 2000). This is a three-dimensional model which is more relevant to entrepreneurship and avoids the generality concerns over Hofstede's dimensions. Thus, it includes dimensions that are beyond normative – namely, regulatory and cognitive (Hayton et al., 2002). The measure is based on Kostova's (1997) approach and aims to explore the variations in entrepreneurial activity among countries. The regulatory dimension is about policies and regulations to support entrepreneurial activity in a country. The cognitive dimension is about the knowledge and skills of people relating to business creation. The normative dimension reflects the degree to which individuals appreciate entrepreneurship (Busenitz et al., 2000).

Hayton and colleagues (2002), however, articulated that this measure has the disadvantage of being a country-specific measure. Further, the present study explores the influence of cultural values beyond the intention-action relationship to address the long-standing argument of values change being the dominant reason for low entrepreneurship activity in Saudi Arabia. Hence, the study adopts a measure which is more specific to the values change notion rather than to the entire institutional profile. In fact, the study acknowledged the importance of the institutional factor as a potential inhibitor of entrepreneurial activity and, hence, highlights this as a direction for future research.

Third, another alternative measure for culture is the Entrepreneurial Values Index (EVI). This measure has 34 items including Entrepreneurial Values, Societal Contribution, and Financial Pay-off Index. The aim of the Index is to discriminate between entrepreneurs and non-entrepreneurs (Davidsson, 1995). In other words, it indicates the potential entrepreneurs who have entrepreneurial values. However, this scale is not in line with the aim of including cultural values in the entrepreneurial mind-set model. Further, this scale does not reflect the values change concept where people tend to prioritise different levels of need. In fact, using the Entrepreneurial Values Index (EVI) would not help the study to explain the underlying reasons for the existence of unsupportive cultures, which is one of the main objectives of the present study.

5.6.2 Dependent Variables

According to the research model, the entrepreneurial goal intention can be influenced both directly and indirectly by post-materialistic values. Consequently, entrepreneurial goal intention is an independent variable. The six-item instrument for measuring entrepreneurial goal intention is given in Table 12.

Table 12 Entrepreneurial Goal Intention Measure

Items	Source
I am ready to do anything to be an entrepreneur.	Liñán and Chen (2009)
My professional goal is to become an entrepreneur.	
I will make every effort to start and run my own firm.	
I am determined to create a firm in the future.	
I have very seriously thought of starting a firm.	
I have the firm intention to start a firm some day.	

According to the research model, self-regulation can be influenced directly by entrepreneurial goal intention. In addition, it can be influenced indirectly through implementation intention, optimism, coping with failure, and action orientation. Hence, self-regulation is the dependent variable. Following the work of Kuhl (2000), self-regulation consists of three main dimensions; these are self-determination, self-motivation, and self-relaxation (resistance to uncertainty). Ilouga et al. (2014) argued that there is a wide consensus about applying the Volitional Questionnaire Component (VQC) which was developed by Kuhl and Fuhrmann (1998) to measure self-regulation using the three dimensions. The 12-item instrument for measuring self-regulation is given in Table 13.

Table 13 Self-Regulation Measure

Items	Sources
I feel that most of the things I do daily, I do of my own free will.	<p>Ilouga et al. (2014)</p> <p>Kuhl and Fuhrmann (1998)</p>
Most of the time I feel in tune with myself.	
In most situations, I feel free to do what I think is right.	
I am usually aware that I want to do what I am doing.	
When my perseverance subsides, I know exactly how to motivate myself again.	
When I work on a difficult task, I can concentrate on the positive aspects of it.	
I can usually motivate myself quite well when my perseverance subsides.	
When a task gets boring, I usually know how to make it interesting again.	
I know exactly how to calm my nervousness.	
I can rapidly relax even when I am in a state of great inner tension.	
I can easily reduce excessive arousal.	
I can reduce my tension level if it becomes disturbing.	

5.6.3 Mediating Variables

Mediators provide information about the significant relationship between variables (Hair et al., 2014). The research model suggests mediating variables between post-materialistic values and entrepreneurial goal intention. These variables include desirability, feasibility, and entrepreneurial self-efficacy. The mediation relationship is used to examine to what extent the deliberative mind-set can provide information about the relationship between post-materialistic values and entrepreneurial goal intention. The measurement scales for desirability, feasibility, and entrepreneurial self-efficacy are given in Tables 14, 15 and 16 respectively.

Table 14 Desirability Measure

Items	Sources
I would rather earn a higher salary employed by someone else than own my own business.	Kolvereid & Isaksen (2006) Gundry & Welsch (2001)
I would rather pursue another promising career than own my own business.	
I am willing to make significant personal sacrifices to stay in business.	
I would work somewhere else only long enough to make another attempt to establish my business.	
I am willing to work more with the same salary in my own business, than as employed in an organisation.	

Table 15 Feasibility Measure

Items	Sources
It will be feasible to start my own business.	Peterman and Kennedy (2003) Krueger et al. (2000)
It will be hard to start my own business.	
If I start my own business, I am certain that it will be a success.	
If I start my own business, I will be overworked.	
I know enough to start a business.	
I am sure of myself.	

Table 16 Entrepreneurial Self-Efficacy Measure

Items	Source
Conceive a unique idea for a business.	Cox et al. (2002)
Identify market opportunities for a new business planning stage.	
Plan a new business.	
Write a formal business plan marshalling stage.	
Raise money to start a business.	
Convince others to invest in your business.	
Convince a bank to lend you money to start a business.	
Convince others to work for you in your new business implementing stage.	
Manage a small business.	
Grow a successful business.	

The other suggested mediation is between entrepreneurial goal intention and self-regulation. These variables include implementation intention, optimism, coping with failure, and action orientation. The mediation relationship is used to examine how the implemental mind-set can explain the relationship between entrepreneurial goal intention and self-regulation. The measurement scales for implementation intention, optimism, coping with failure, and action orientation are given in Tables 17, 18, 19 and 20 respectively.

Table 17 Implementation Intention Scale

Items	Source
I have made a detailed plan regarding... <i>when</i> to start a business.	Sniehotta et al., 2005
I have made a detailed plan regarding... <i>where</i> to start a business.	
I have made a detailed plan regarding... <i>how</i> to start a business.	

Table 18 Optimism Scale

Items	Sources
In uncertain times, I usually expect the best.	Scheier et al. (1994) Taylor et al. (1995)
It's easy for me to relax. (Filler item)	
If something can go wrong for me, it will.	
I'm always optimistic about my future.	
I enjoy my friends a lot. (Filler item)	
It's important for me to keep busy. (Filler item)	
I hardly ever expect things to go my way.	
I don't get upset too easily. (Filler item)	
I rarely count on good things happening to me. (R)	
Overall, I expect more good things to happen to me than bad.	

Table 19 Coping with Failure Scale

Items	Source
After something unpleasant has happened, I often brood over it for a long time.	Kuhl and Fuhrmann (1998)
When something bad happens, it usually takes me a very long time until I can concentrate on something else again.	
When I am in a bad mood, I often have great difficulty cheering myself up again.	
Once I begin to worry, I have difficulty getting rid of those thoughts.	

Table 20 Action Orientation Scale

Items	Source
I frequently postpone carrying out anything unpleasant.	Kuhl and Fuhrmann (1998)
I often plan to do things, but then I don't get around to doing them.	
I postpone many things which I have to do.	
I often begin to work on a task but then never finish it.	

5.6.4 Demographics variables and entrepreneurial goal intention

The last section of the questionnaire collects demographic data on gender, age, and education level. These variables are selected due to the expected influences they have among

entrepreneurial goal intention as suggested by many scholars (Ajzen, 1991; Krueger et al., 2000; Thurik et al., 2005; Kautonen et al., 2011; Quan, 2012; Shinnar et al., 2012; Fossen and Bu'ttner, 2013). According to the Global Entrepreneurship Monitor (GEM, 2010), various groups within societies – different genders age groups and education levels - must contribute to entrepreneurship. This is reflected in the present study which includes gender, age, and education level variables. The age group ranges from less than 20 years to 60 years to match the labour force role in Saudi Arabia which starts from 15 and continues to the retirement age of 60 (Ministry of Labour, 2013).

5.7 Constructs Validity and Reliability

According to Bryman (2012, p.168), reliability is essentially about “consistency of measure”. The consistency of a measure can be affected by both the *participant* and the *observer*. Participant error might cause unstable results at different occasions whereas participant bias might not reflect his/her real stance. The observer error might include approaching questions in different ways whereas observer bias might raise the concern of understanding and interpreting responses differently (Saunders et al., 2009). In case of multiple indicator measures, internal reliability (coherence) among items is crucial to ensure that the indicators reflect the same thing. One of the most useful tests for internal reliability is Cronbach’s alpha (Bryan, 2012). This test measures to what extent the items of a construct are correlated and hence measure the same aspect. The threshold for Cronbach’s alpha test is 0.7; thus, the higher the value the more reliable the measure is (Field, 2009).

According to Saunders et al. (2009, p.157), validity is about “whether the findings are really about what they appear to be about”. Hence, the researcher has included the measures which proved to be valid and reliable by previous studies in the field. According to Bryman (2012, p.169), “the increasing use of measures with relatively well-known validity and reliability is a

step in the right direction”. These studies were published in high-ranked journals according to The Association of Business Schools, Academic Journal Quality Guide as given in Table 21.

Table 21 Scales Sources

Variable	Sources	Journal	Rank
Post-Materialistic Values	Abranson and Inglehart (1986)	American Journal of Political Science	4
Entrepreneurial goal intention	Liñán and Chen (2009)	Journal of Entrepreneurship Theory and Practice	4
Feasibility	Peterman and Kennedy (2003) Krueger et al. (2000)	Journal of Entrepreneurship Theory and Practice	4
Desirability	Kolvereid and Isaksen, (2006) Gundry and Welsch (2001)	Journal of Business Venturing	4
Entrepreneurial Self-Efficacy	Cox et al. (2002)	Journal of Business Venturing	4
Implementation Intention	Sniehotta et al., 2005	European Journal of Social Psychology	3
Optimism	Scheier et al. (1994) Taylor et al. (1995)	Journal of Personality and Social Psychology	4
Coping with Failure	Ilouga et al. (2014)	Small Business Economics	4
Action Orientation	Ilouga et al. (2014)	Small Business Economics	4
Self-Regulation	Ilouga et al. (2014)	Small Business Economics	3

5.7.1 Pilot Study

Pilot tests have several advantages from participants' and researchers' perspectives (Saunders et al., 2009). As far as participants are concerned, the pilot test can ensure that questions are clear, easy to understand, and valid. As far as the researcher is concerned, it confirms that data are easily recorded and validated, and that they serve the research objective. It further indicates the time required to complete the questionnaire and helps to investigate unanswered questions. According to Bryman (2012), the pilot test can help to ensure that both questionnaire and research instrument operate well. In addition, some argued that pilot study can help to refine the research instruments (Oppenheim, 2000; Kalof et al., 2008; Creswell, 2014). Hence, the researcher conducted a pilot study with national private sector employees in Saudi Arabia.

Pilot Study Sample Size

One of the crucial aspects of the pilot study is ensuring a sufficient sample size. According to Nieswiadomy (2002), a pilot study sample size can be approximately 10 participants whereas Lackey and Wingate (1998) argued that it can be 10% of the final study size.

Samples between 10 and 30 are practically acceptable as it facilitates data processing (Isaac & Michael, 1995; Hill, 1998). Hertzog (2008) argued that a small sample of 10-15 participants per group can be sufficient in the case of a feasibility study, 20-25 participants per group for intervention efficacy pilots, 25-40 participants per group in the case of instrument development, and 30- 40 participants per group for pilot studies comparing groups. According to Hertzog (2008, p.181), "the upper bound was chosen based on experience that a pilot study of more than 40 per group is likely to be unrealistic in terms of time and cost, and, in some cases, would not be an optimal use of a limited sample of participants available for a study".

To ensure the reliability of constructs using the target population, a pilot study was conducted with 40 Saudi private sector employees in Saudi Arabia. This sample is like the targeted study sample. The researcher used an online questionnaire via “Qualtrics” and emphasised that participation is completely voluntarily and anonymously.

The reliability of each construct was tested using Cronbach’s alpha test. The initial values showed two of the constructs scoring lower than the threshold of 0.7; these were desirability and feasibility. The Cronbach’s alpha for both constructs are 0.647 and 0.688, respectively. The researcher included these measures based on reference to high-ranked journals. Hence, based on the rule of thumb which states that in the case that Cronbach’s alpha value is below 0.70 and above 0.50, deleting items depends on the value of the corresponding composite reliability of the construct. If the composite reliability is higher than 0.70, no items will be omitted. Looking at the composite reliability measures, it was found that composite reliabilities for desirability and feasibility are all above the threshold of 0.70. Hence, all items of both constructs are retained. The results are given in Table 22.

Table 22 Cronbach’s Alpha

Constructs	Name	Number of Items	Cronbach’s alpha
DES	Desirability	5	.647
FEAS	Feasibility	3	.688
ESE	Entrepreneurial Self-efficacy	10	.862
ACT_OR	Action Orientation	4	.719
REG	Self-regulation	12	.882
GO_INT	Entrepreneurial goal intention	6	.952
COP_F	Coping with failure	4	.865
PMT_VAL	Post-materialistic values	4	.791
OPTIM	Optimism	7	.705

5.8 Research Ethics

Research ethics is defined as respecting morals and values in each step of the research from both the participants' and the researcher's perspectives (McNabb, 2013). According to Bryman (2012), the main ethical principles that researchers must ensure include avoiding harm, gaining formal consent, assuring privacy, and preventing deception. Hence, research ethics are mainly about what is allowed and what is not while research is taking place (Kalof et al., 2008). As an initial step, the researcher sent a first email to companies to gain participation consent.

The researcher endeavoured to protect participants from physical and psychological harm at all times during the investigation. To ensure the respondents' security, the researcher refrained from applying any sort of pressure to be part of the survey. In addition, respondents' confidentiality and anonymity was carefully protected. The researcher ensured that any kind of embarrassment, discomfort or harm that could be caused during the collection of the data or the reporting phase was avoided.

As far as informed consent is concerned, the first step that the researcher took was sending a support letter via email to companies' contact persons requesting participation consensus. This letter introduced the researcher and the nature of the study, and was signed by the researcher supervisors. Further, the researcher informed potential participants in advance of any features of the research that might reasonably be expected to influence their willingness to take part in the study. As far as openness and honesty were concerned, the researcher expressed clearly the research purpose and application in the email body and supporting letter. In addition, the researcher advised that once the results are published, the researcher will make them available upon request. With respect to the participants, the researcher's contacts were given to participants in case they had any questions regarding the research process. These questions would be considered and answered by the researcher. In addition, it was

stated in the support letter that participants had the right to withdraw at any time without penalty. If a participant was to withdraw from the survey, the data related to this participant would be destroyed immediately. All information regarding the survey was explicit and no information was hidden. If there were any additional questions during the survey or after completion, these would be fully answered by the researcher.

The researcher ensured confidentiality of the participants' identity and data throughout the conducting and reporting of the research. To respect confidentiality and protect privacy, the researcher ensured full anonymity for the participants and confidentiality for the supplied information. McNabb (2013) and Kalof et al. (2008) argued that the researcher should ensure respondents' anonymity, confidentiality and privacy. The researcher confirmed he would remove all identifying information about the participants from the research records and report. In addition, published work will always be with anonymous responses. If required, the researcher would ask permission from the concerned person or company before publishing any specific details about them. All these ethical considerations were mentioned in the email invitations and the covering letter to reassure the participants. As stated by Saunders et al. (2009), the main purpose among these ethics considerations is to prevent harm. The ethical approval application is attached in Appendix C.

5.9 Conducting the Survey

The researcher started a conversation with the firms through a primary email that invited them to participate in the study. A supporting letter from the researcher supervisors was attached to the email (see Appendix D). The letter introduced the researcher as well as the study he intended to conduct. It highlighted the importance of the research and the value of participants' contribution. Further, it emphasised the confidentiality and anonymity of the study along with the contact details for the research director.

The researcher sent the email to 30 companies out of the 169 listed companies in the Saudi stock market. These companies were selected randomly and unique survey links were assigned to each company to facilitate feedback tracking. Initially, the researcher received the consensus of 13 companies to participate in the study. To improve the non-response rate of other companies, the researcher followed the argument which states that one of the advantages of the online survey is the ease of follow-up through reminder emails (Rea & Parker, 2012). Hence, the researcher sent a first reminder to the non-respondents a week after the initial email. Consequently, two more companies agreed to participate in the study which raised the number of participating companies to 15.

Later, the researcher started receiving participants' feedback through the research software (Qualtrics). Although three companies fully achieved the targeted number of 50 participants, other companies' inputs ranged from 0 to 20 participants. Thus, the total number of participants within the first month was almost 200 participants, which was still behind the minimum sample size of 384. During the second month of field work, the researcher started calling the companies which have agreed to participate in the study but which had still only yielded a limited number of participants. The companies' contact persons agreed to follow up with the employees to enhance the company inputs. This effort increased participation by 30%, reaching 260 participants. Finally, to reach the target sample size, the research decided to visit Saudi Arabia and meet with companies to enhance their participation in the study. The visit was successful and resulted in an increase in the total number of contributions to 405. Having looked at the process of designing and conducting this survey, the next step is to look now at selecting the most appropriate statistical tool to analyse the data.

5.10 Applying Structural Equation Modelling

Structural Equation Modelling (SEM) is a statistical technique that enables researchers to model and evaluate relationships between variables, and examine measurements' quality

(Sarstedt et al., 2014). It enables researchers to test theories and conceptual models empirically (Rigdon, 1998, Hair et al., 2012). To apply SEM, there are two main approaches; one is covariance-based (CB-SEM) and the second is variance-based partial least squares (PLS-SEM) (Hair et al., 2014). However, Hair et al. (2012) emphasised that there is no superiority among the two SEM methods. Applying either CB-SEM or PLS-SEM depends on research goal, data features, and model.

In this sense, Sarstedt et al. (2014) identified several conditions for choosing between PLS-SEM and CB-SEM. From a *research* perspective, they articulate that PLS-SEM is more appropriate in several research settings including exploring studies, predicting constructs, and deciding on proceedings factors. Further, Henseler and Sarstedt (2013) stated that if the goal of a study is to predict and explain the variance of the dependent variables when examining the model, then PLS-SEM is more appropriate. That is, PLS-SEM is superior in the case of predicting variables variance (Henseler et al., 2009; Reinartz et al., 2009, Hair et al., 2014). From a *model* perspective, they argue that PLS-SEM is more applicable in models with more than five constructs, more than six items per construct, and many relationships (Sarstedt et al., 2014).

On the other hand, CB-SEM is more suitable if the aim of the research is to compare alternative theories. It is a superior approach for selecting, comparing, and validating of models (Henseler & Sarstedt, 2013). Consequently, the decision to implement PLS SEM was taken for several reasons. First, the research aims to explore intention-action gap concern within Saudi Arabia context. Second, it predicts determinants of goal intention at the pre-decision phase and determinants of self-regulation at the pre-action phase. Third, it develops an entrepreneurial mind-set model which includes more than five constructs, more than six items per construct, and many relationships.

In summary, the study applies a regression-based Partial Least Squares Structural Equation Modelling (PLS-SEM) using Smart PLS 3.21 software. In this study, the variance-based approach is more appropriate than the covariance-based (CB-SEM) approach for several reasons. First, it involves theory development (Sarstedt et al., 2014) where the role of culture is conceptualised to understand the influence of post-materialistic values on entrepreneurship. Further, the self-regulatory role is conceptualised to bridge the intention-action gap in an entrepreneurial context. Thus, it illuminates the intervening factors between goal intention and self-regulation.

Second, the variance-based approach satisfies the aims of exploring and predicting constructs, and explaining the variance of the dependent variables (Henseler et al., 2009; Reinartz et al., 2009; Henseler & Sarstedt, 2013; Hair et al., 2014; Sarstedt et al., 2014). This study explores the direct and indirect relationships between post-materialistic values and goal intention. In fact, it explains the effect of values change in the entrepreneurship domain. Further, the research predicts the intervening constructs that enable people to translate their entrepreneurial intention into action, and aims to explain the variance in self-regulation, which helps to bridge the intention-action gap, thus defining the proceeding self-regulatory factors in entrepreneurship.

Third, the PLS algorithm is recommended to handle complex models (Henseler et al., 2009). Sarstedt and colleagues (2014) argued that the PLS-SEM is more applicable in models with various constructs, several items per construct, and many relationships. The research model for this study involves 10 constructs and suggests direct and indirect relationships between post-materialistic values and goal intention as well as between goal intention and self-regulation. Further, each construct has several indicators, which constitutes a complex setting. Against this background, the researcher applies the PLS-SEM approach to fulfil the study aims.

5.11 Summary

This chapter highlighted the research methodology from several perspectives. First, the researcher philosophy is **post-positivism** where objectivity exists through theories, hypotheses, and measures whereas human factors are inevitable. Thus, the author believes that knowledge about entrepreneurial behaviour phenomenon can be acquired through facts and measures without ignoring human factors which leads to adopting the deduction approach. Second, as the deductive approach is usually linked with the survey strategy, this study implemented a questionnaire to explore the entrepreneurial behaviour phenomenon. It identifies dependent and independent variables along with scales to measure cause-effect relationships between these variables. Third, a pilot study was conducted to assure content validity of the questionnaire as well as constructs' reliability. Fourth, a target sample has been identified as national private sector employees in Saudi Arabia with a sample frame of 1500 employees and minimum sample size of 384. Finally, the online survey was conducted and generated a total of 405 participants.

Having looked at methodology and data collection, the next chapter look at analysing the data.

Chapter Six: Analysis

Following the theoretical part, hypothesis setting, and data collection, is the next step is analysis of the data. In this stage, the researcher examines the quality of data and finds out how theories fit reality. The data were gathered by questionnaire targeting a sample of 1500 private sector national employees in Saudi Arabia. This chapter addresses data analysis in several steps. First, it describes the characteristics of the data including participants' age, gender, and education level. Second, it highlights how the researcher dealt with common method bias. Third, it explains the analysis tool that the researcher applied to analyse the data. Further, quality of measurements is evaluated through reliability and validity tests. Next, the relationships between constructs are examined. Finally, assessment of hypotheses is reported.

6.1 Descriptive Statistics

Prior to measurement model analysis and structural model analysis, it is vital to describe the basic characteristics of the data. Descriptive statistics are “the basis of all quantitative reasoning and it is absolutely necessary to be reported in research studies (Larson & Plonsky, 2015, p. 130).

The study sample includes private sector national employees in Saudi Arabia. As suggested in the methodology chapter, due to the huge number of private sector national employees in Saudi Arabia, the sample was reduced to the large (number of employees 20+) and listed companies' employees. There are 169 large companies in Saudi Arabia listed in the stock market. These companies are operating in 15 different economic industries with numbers of employees ranging from 62 to 22,000.

The survey was sent to a targeted sample of 1500 private sector national employees in Saudi Arabia; a total of 405 employees returned the questionnaire almost fully answered. This represents a 27% response rate of the targeted sample. However, as 45 participants reported

that they own a business, these participations were excluded from the study leading to a total of 360 inputs, shown in Table 23.

Table 23. Business Ownership

Ownership	Per cent	Status
Owners	11%	Excluded
Non-Owners	89%	Included

The main characteristics of the sample are age, education level, and gender. These characteristics are given in Table 24 with few missing data in each characteristic.

Table 24 Sample Characteristics

Data	Age	Education	Gender
Valid	339	337	338
Missing	21	23	22

As far as age is concerned, the participants' age groups range from 20-25 to 51-60 as given in table 34. Most participants fall into two age groups; namely, 31-40 and 41-50. These age groups account for 74.9% of the participants. This is expected in the private sector in Saudi Arabia because the age group of 20-25 are not attractive for private sector as they are either fresh graduates or hold secondary-level education. Those in the age group of 26-30 are mainly in the first five years of their careers; hence, they are slightly attractive. Those in the age group of 31-50 are the most attractive for the private sector as they often have high experience in their fields. However, those in the age group of 51-60 have a low presence in the private sector as the retirement age ranges from 50 (early optional retirement) to 60 (retirement age). This result is further represented in Table 25 and Figure 21.

Table 25 Age

Range	Per cent
20-25	6.8
26-30	8.8
31-40	39.8
41-50	35.1
51-60	9.4
Total	100

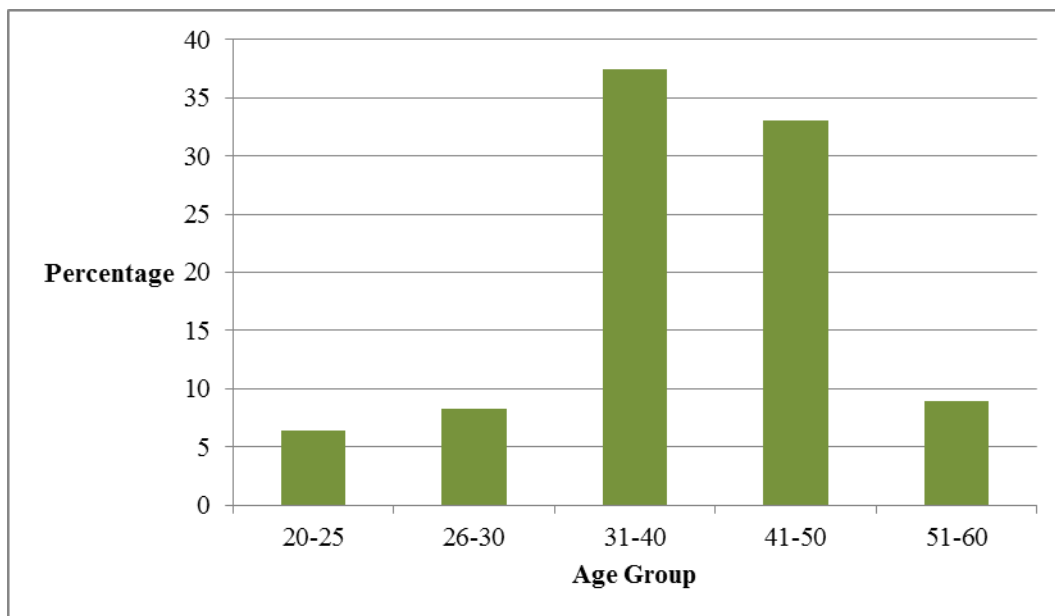


Figure 21 Age Groups

As far as education is concerned, the participants' education levels range from lower than secondary school to postgraduate. However, the education level of the majority of participants is the undergraduate degree. This is expected because often a Bachelor's degree is the minimum requirement for most private sector jobs in Saudi Arabia. Thus, the

undergraduate group accounts for 68% of the participants compared to 16.3% postgraduate and only 7.4% for secondary level, shown in Table 26 and Figure 22.

Table 26 Education

Education Level	Per cent
Postgraduate	16.3
Undergraduate	68
Secondary	7.4
Other	8.3
Total	100

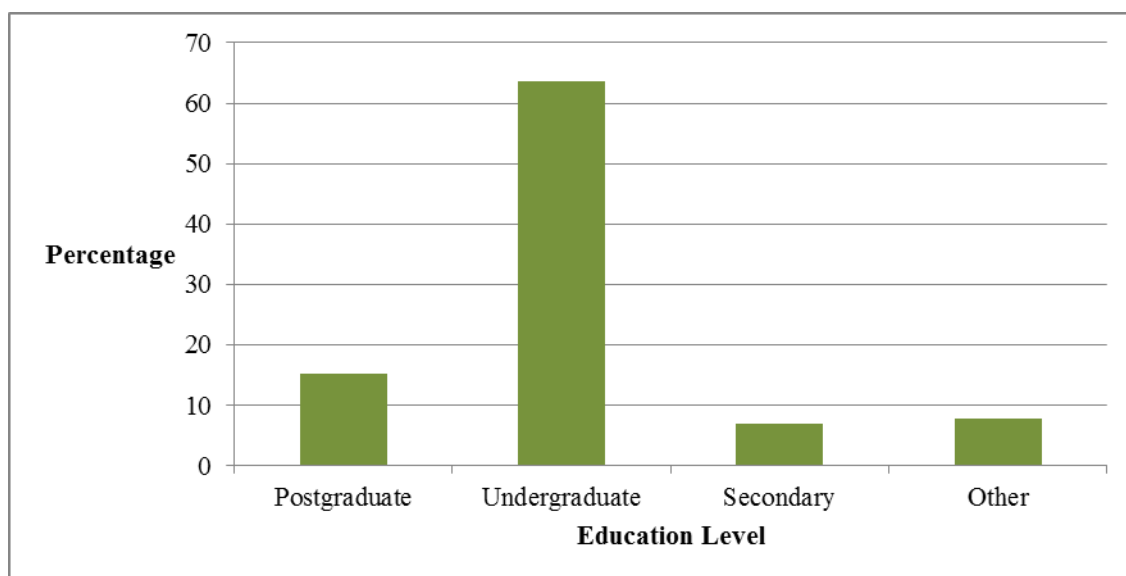


Figure 22 Education Level

As far as gender is concerned, most participants are mainly males. The males account for 95% of the participants compared to only 5% of females in Table 27 and Figure 23.

Table 27 Gender

Gender	Per cent
Male	95
Female	5
Total	100



Figure 23 Gender

The sizeable difference between numbers of male and female participants is due to three main reasons. First, according to The Ministry of Labour (2013), the number of Saudi males working in the private sector is 1.0m (73%) compared to 0.4m (27%) females. Second, due to gender segregation, the researcher had very limited accessibility to females' divisions in some of the private sector companies in Saudi Arabia. Third, entrepreneurship literature highlights that men are more likely to have entrepreneurial goal intention and to own businesses than women are (Quan, 2012). One of the reasons may include context variations. According to GEM (2010), the ratio of business ownership varies among different contexts. In Middle East and North Africa (MENA), male business owners considerably exceed women. Gupta et al. (2009) asserted that the low entrepreneurship intention among women compared to men is salient among societies associating entrepreneurship with masculine

characteristics. The association of masculine characteristics with entrepreneurship is inherent women in terms of social and financial support and hence reduces their entrepreneurial activities. The researcher acknowledges this as one of the study limitations.

6.2 Common Method Bias

Common method bias refers to “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Fiske, 1982, p. 81). It is a result of using the same method to predict both dependent and independent variables. This often causes systematic measurement errors and influences validity, which in turn impacts the research findings (Bagozzi & Yi, 1991).

Researchers need to exercise caution with several sources of common method biases and try to eliminate or minimise them. These sources include common respondent and common items’ characteristics. As far as the common respondent is concerned, the measures of dependent and independent variables are acquired from the same respondent. This might cause several biases including the tendency of respondent to be consistent, rational, socially acceptable, and positive. As far as common items’ characteristics are concerned, one of the main concerns is items’ ambiguity where respondent might respond to them randomly (Podsakoff et al., 2003).

The common method bias can affect the relationships between constructs (Podsakoff et al., 2003). It can increase or decrease the relationships between measured variables and hence seriously affect research findings. This is due to the high relationship among measurement methods compared to the relationships between observed measures (Cote & Buckley, 1988). However, it is argued that the effect of common method bias varies among disciplines and contexts (Cote & Buckley, 1987; Williams et al., 1989; Crampton & Wagner, 1994).

To reduce common method bias, it is suggested to implement two main remedies- *procedural* and *statistical*. The former includes reversed items, shuffled questions, and making answers anonymous (Podsakoff et al., 2003). The latter includes applying the Harman single-factor test (Andersson & Bateman, 1997; Aulakh & Gencturk, 2000). This study has tackled the common method bias by stating in the opening statement of the questionnaire that it is anonymous, confidential, there is no right or wrong answer, and the first answer is likely to be the best. This assurance can encourage participants to reduce the tendency to worry about being consistent, rational, socially acceptable, and positive. In addition, by conducting the pilot study, the researcher has tested for the possibility of ambiguous items in the questionnaire.

The statistical remedy using the Harman single-factor test assumes that by loading all construct items into an exploratory factor analysis, all factors that account for variance in the variables will emerge. Out of these emerging factors, there is a single factor which accounts for most of the variance. To confirm that there is no common method bias, this single factor should not account for more than 50% of variance. In this study, the Harman single-factor test revealed that the single factor accounted for 16.78% of the variance, which is less than 50%. This result suggested that common method bias is not a major issue in this study, as given in Appendix C.

6.3 PLS-SEM Analysis

As introduced in the methodology chapter, this study adopts Partial Least Squares Structural Equation Modelling (PLS-SEM). Hence, there are several characteristics that influence the data analysis process. The first is the assumption of data normal distribution which refers to “special form of the symmetric distribution in which the numerical data for variable can be plotted as a bell-shaped curve” (Saunders et al., 2009, p.596). PLS-SEM makes no assumptions regarding data characteristics compared to CB-SEM (Bird et al., 2002; Sarstedt

et al., 2014). The second issue is how missing data are dealt with where participants do not answer survey questions (Bryman, 2012). There are two main ways to deal with the missing data problem in PLS-SEM; the first is *mean value replacement* and the second is *observation deletion* (Hair et al., 2014). The former entails replacing the missing data of an indicator with the average valid values of that indicator. The latter implies that whenever the missing data in a questionnaire or a construct exceed 15%, the associated observation should be omitted. However, it is suggested that mean value replacement might influence the variability of data and cause misleading relationships among variables (Hair et al., 2014). Consequently, the researcher has implemented the rule of thumb of 15% and removed all observations which have more than 15% missing values.

The latent variables are categorised into exogenous latent variables and endogenous latent variables. The former refers to latent variables which explain other constructs whereas the latter refers to latent variables which are being explained in the model (Hair et al., 2014). The latent variables along with coding for the study are given in Table 28.

Table 28 Variables and Coding

Variables	Codes
Exogenous Variable	
Post-Materialistic Values	PMAT_VAL
Outcome Variable	
Self-Regulation	REG
Endogenous Variables	
Desirability	DES
Feasibility	FEAS
Entrepreneurial Self-Efficacy	ESE
Goal Intention	GO_INT
Implementation Intention	IMP_INT
Coping with Failure	COP_F
Action Orientation Competency	ACT_OR
Optimism	OPTIM

To measure an unobserved concept, it is common practice to measure it indirectly through indicators. Using more than one indicator can cover many aspects of the concept, reduce measurement error, and hence reveal more accurate concept measurement (Hair et al., 2014; Sarstedt et al., 2014). There are two main stages to analyse a path model in PLS-SEM; namely, analysing the measurement model results and analysing the structural model results. The former refers to the relationships between indicators and constructs. The latter refers to the relationship between constructs of the path model (Hair et al., 2014).

In this study, the researcher followed the PLS-SEM evaluation procedure given in Figure 24 (Hair et al., 2014; Sarstedt et al., 2014, p. 108). The following sections look at these analysis stages, in terms of defining the constructs' mode, examining the measurement model, and evaluating the structural model.

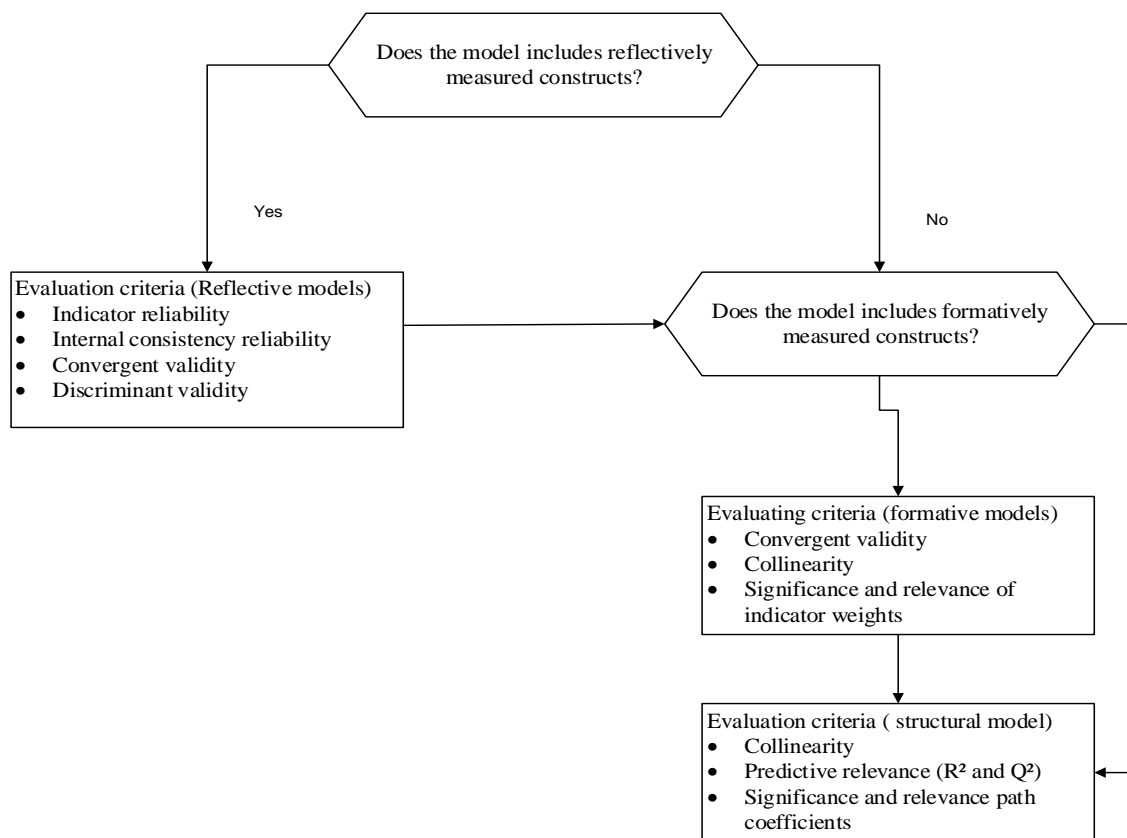


Figure 24 PLS-SEM Evaluation Procedure

Source: Sarstedt et al. (2014, p. 108)

6.3.1 The Nature of Constructs

In the PLS-SEM, unobserved variables (latent variables) must be measured by observed variables (indicators/items). Hence, the basic step prior to measurement analysis is to identify the nature of latent variables' measurements. Latent variables are measured by *reflective* and *formative* constructs (Gudergan et al., 2008; Mackenzie et al., 2011). The former has a long tradition in social sciences where a construct causes all associated indicators. The assumption is that a construct is a characteristic that explain the items. The relationship arrow in this case goes from construct to indicators (Sarstedt et al., 2014). This reflective relationship between constructs and indicators results in strong correlations among associated indicators. Consequently, indicators are interchangeable where omitting a single item will not harm the meaning of a construct. This implies that the aim in reflective measurements case is to maximise the indicators' overlap. However, formative constructs assume that construct is a consequence of the associated indicators. Hence, the aim is to cover full aspects of a concept using different indicators with less overlap. In other words, items should cover all possible causes of a concept/construct independently (Becker et al., 2012; Robins, 2012; Hair et al., 2014).

Hair et al. (2014) argued that there is “no clear cut” way for deciding about reflective or formative constructs. Hence, they articulate several guidelines for selecting among constructs' measurements. The reflective construct is to cause and explain the indicators. Hence, the indicators are interchangeable and consequences of a construct. Diamantopoulos and Winklhofer (2001) further explained this relationship by suggesting that the interchangeable nature of the items of reflective constructs means that eliminating any item does not affect the associated construct. However, omitting a formative item indicates eliminating part of the related construct.

In the present study, all the constructs are reflective because they explain the associated items (see Table 12 as an example). Further, the indicators are highly correlated and interchangeable (Diamantopoulos & Winklhofer, 2001; Henseler et al., 2009; Hair et al., 2014).

6.3.2 Measurement Model Analysis

The first stage of analysing results in the PLS-SEM is examining the measurement models. This stage is about evaluating the quality of measurements prior to assessing the relationships between constructs of the structure model. Once the measurement model evaluation indicates a satisfactory level of quality, the researcher can proceed to the second stage of examining the structural model and testing hypotheses (Sarstedt et al., 2014).

Applying the PLS-SEM evaluation procedure given in Figure 17, the evaluation criteria for reflective models include indicators' reliability, internal consistency reliability (composite reliability), convergent validity, and discriminant validity. To carry out measurements' model analysis, each evaluation criterion needs to fulfil certain threshold as given in Table 29 (Peng & Lai, 2012; Hair et al., 2014, p.107).

Table 29 Evaluation Thresholds for Measurement Model

Evaluation Criteria	Threshold
Indicator Reliability	Indicator's outer loadings higher than 0.70.
Internal Consistency Reliability (Composite Reliability)	Composite reliability higher than 0.70.
Convergent Validity	Average Variance Extracted (AVE) higher than 0.50.
Discriminant Validity	Indicator's outer loadings on a construct higher than all its cross-loadings with other constructs.
	Fornell Larcker criterion (square root of the AVE of each construct higher than its highest correlation with any other construct).

Source: Hair et al. (2014, p.107)

The following sections look at each of these evaluation criteria to assess measurement quality.

Indicators' Reliability

Reliability refers to “whether an instrument can be interpreted consistently across different situations” (Field, 2009, p.12). It is about “the consistency of a measure of a concept” (Bryman, 2012, p. 169). Indicator reliability refers to “evaluating how good constructs are measured by their indicator variables individually” (Hair et al., 2012, p.423). Internal reliability is “whether the indicators that make up the scale or index are consistent. It is about “respondents scores on any one indicator tend to be related to their scores on the other indicators” (Bryman, 2012, p. 169). The indicators' loadings' evaluations examine how each item explains more variance than the error of the associated construct. Hence, the measures of reliability evaluate the extent of individual differences between scores across groups of respondents (Becker et al., 2012).

It is by rule of thumb that items with outer loadings of higher than 0.70 are retained and items with outer loadings of less than 0.40 are omitted (Hair et al., 2014). Applying this rule to the study revealed that several indicators have been omitted from different constructs. These indicators include DES3, FEAS2, FEAS4, REG1, REG2, REG3, OPTIM3, OPTIM6, OPTIM7, OPTIM8 and OPTIM9. Looking at items with outer loadings between 0.40 and 0.70, these items include PMAT_VAL5, DES4, FEAS1, FEAS6, ESE1, ESE5, ESE7, ESE8, ESE9, OPTIM2, ACT_OR1 and REG4 (see sections 5.6.2 and 5.6.3). After applying the outer loading relevance testing, the researcher deleted items when deletion increases the associated construct values of AVE and composite reliability above the threshold (Hair et al., 2014).

As far as feasibility is concerned, deleting item FAES6 resulted in increasing AVE to above threshold; hence, the item was deleted. Likewise, deleting items of ESE7, OPTIM2, and REG4 resulted in increasing AVE to above 0.50. Consequently, these items were deleted as shown in Table 40 (highlighted). The researcher retained the remaining items of PMAT_VAL5, DES4, FEAS1, ESE1, ESE5, ESE8, ESE9, and ACT_OR1 with outer loadings between 0.40 and 0.70 as deletion will not add value to the associated constructs' values of composite reliability or AVE. This is given in Table 30.

Table 30 Outer Loading Relevance Testing

Item	Composite Reliability <i>Before Deleting Items</i> (>0.70)	Composite Reliability <i>After Deleting Items</i> (>0.70)	AVE <i>Before Deleting Items</i> (>0.50)	AVE <i>After Deleting Items</i> (>0.50)
FEAS6	0.779	0.785	0.470	0.549
ESE7	0.907	0.905	0.495	0.517
OPTIM2	0.803	0.807	0.452	0.514
REG4	0.906	0.902	0.494	0.509

Consequently, the combined loading and cross-loadings for all indicators after omitting unreliable items are shown in Appendix D.

Internal Consistency Reliability (Composite Reliability)

Internal consistency reliability is “evaluating how well constructs are measured by their indicator variables jointly” (Hair et al., 2012, p.423). The reliability of latent variables enables researchers to “assume the instrument’s scores are dependable, consistent, and more likely to be generalized to other samples, times, reviewers, and samples of behaviours” (Hagan, 2014, p.431). The composite reliability coefficients measure is used to test the construct reliability, meaning how relevant the participants’ responses are in tackling the construct. Although the traditional internal consistency reliability measure is Cronbach’s alpha, it acts as a “conservative measure” of internal consistency reliability by assuming equal loadings for all items. Thus, an additional internal consistency reliability measure of composite reliability can be used (Raykov 2007; Hair et al., 2014).

The threshold is 0.70 meaning that 70% of the variance associated with items is reliable. As given in Table 31, the composite reliability for all constructs is higher than 0.70. The Cronbach’s alpha for all the study constructs are more than 0.70 except the constructs of feasibility and optimism. However, the associated composite reliability for these two constructs are 0.785 and .807, respectively, which indicates reliable variance on the composite scores. As suggested by guidelines for applying the PLS-SEM, the recommendation for the criterion of internal consistency reliability is “Do not use Cronbach’s alpha; composite reliability ≥ 0.70 ” (Hair et al., 2012, p.423; Bagozzi & Yi, 1988).

Table 31 Composite Reliability and Cronbach's Alpha

Construct	Composite Reliability Coefficients	Cronbach's Alpha Coefficients
	(>0.70)	(>0.70)
PMAT_VAL	0.872	0.815
DES	0.834	0.733
FEAS	0.785	0.589
ESE	0.905	0.882
GOI_NT	0.939	0.921
IMP_INT	0.949	0.920
OPTIM	0.807	0.681
ACT_OR	0.855	0.773
COP_F	0.909	0.866
REG	0.902	0.876

Convergent Validity

As validity, cannot exist without reliability, the second step after evaluating reliability is assessing validity of measures (Kimberlin & Winterstein, 2008; Hair et al., 2014). Measurement validity refers to “whether a measure of a concept really measures that concept” (Bryman, 2012, p. 170) or “whether an instrument actually measures what it sets out to measure” (Field, 2009, p.12).

The validity test of a construct enables researchers to ensure that indicators of a construct measure what they intend to measure. It tests whether items under a construct are strongly correlated with each other. In other words, all converge on the same construct and share a proportion of the variance higher than error. The convergent validity of measures can be evaluated by calculating Average Variances Extracted (AVE) for all items associated with

each construct (Peng & Lai, 2012). The AVE is calculated by averaging all squared outer loadings of indicators associated with a construct.

As measurements are reflective, a construct must account for a certain level of its indicators' variance compared to errors. The threshold for AVE is greater than 0.50 at the construct level and the acceptable items loadings level is higher than 0.70. This means that for a construct to be valid reflective measure, it should explain at least 50% on average of its indicators' variance. Otherwise, the error levels of the construct items will be higher than their variance which diminishes validity (Bagozzi & Yi, 1988; Hair et al., 2014; Sarstedt et al., 2014). The study revealed that all AVE values for all constructs are greater than 0.50, as given in Table 32.

Table 32 Average Variances Extracted (AVE)

Constructs	AVE (>0.50)
PMAT_VAL	0.578
DES	0.560
FEAS	0.549
ESE	0.517
GOI_NT	0.719
IMP_INT	0.862
OPTIM	0.514
ACT_OR	0.598
COP_F	0.715
REG	0.509

Discriminant Validity

The principle of discriminant validity assumes that there is a divergence between items of different constructs (Peng & Lai, 2012). This indicates that each construct accounts for a different aspect of the concept. Indicators of a construct should not be strongly correlated with items of other constructs. Thus, items across constructs should be discriminant and divergent rather than convergent.

There are two approaches for evaluating discriminant validity; these are cross-loadings of items and the Fornell-Larcker criterion (Hair et al., 2012). The former evaluates validity at the indicators' level whereas the latter evaluates validity at the constructs' level. As far as the cross-loadings approach is concerned, it entails that items should load highest with the associated construct compared to other constructs. The Fornell-Larcker criterion requires that "each construct's AVE should be higher than its squared correlation with any other construct" (Hair et al., 2012, p.430; Fornell & Larcker, 1981). In other words, each construct shares higher variance with its items than with other constructs' items.

The evaluation of the discriminant validity of this study is given in Table 43. Applying the Fornell and Larcker criterion, it is apparent from the table that the square root of the AVE of each construct is higher than its highest correlation with any other construct. For example, the square root of the AVE of DES construct is 0.816 which is higher than its highest correlation with any other construct (0.436). Consequently, all constructs in this study have discriminant validity as given in Table 33.

Table 33 Discriminant Validity

	PMAT_ VAL	DES	FEAS	ESE	GO_ INT	IMP_ INT	OPTIM	ACT_ OR	COP_ F	REG
PMAT_ VAL	(0.760)	-0.108	-0.055	-0.131	-0.169	-0.059	-0.235	0.071	0.109	-0.160
DES	-0.108	(0.748)	0.348	0.304	0.514	0.199	0.068	0.023	0.079	0.033
FEAS	-0.055	0.348	(0.741)	0.559	0.552	0.447	0.279	-0.065	0.060	0.325
ESE	-0.131	0.304	0.559	(0.719)	0.580	0.479	0.270	-0.031	0.040	0.340
GO_ INT	-0.169	0.514	0.552	0.580	(0.848)	0.488	0.258	-0.129	-0.056	0.268
IMP_ INT	-0.059	0.199	0.447	0.479	0.488	(0.928)	0.179	0.013	0.014	0.274
OPTIM	-0.235	0.068	0.279	0.270	0.258	0.179	(0.717)	0.063	0.238	0.488
ACT_ OR	0.071	0.023	-0.065	-0.031	-0.129	0.013	0.063	(0.773)	0.427	0.095
COP_F	0.109	0.079	0.060	0.040	-0.056	0.014	0.238	0.427	(0.845)	0.298
REG	-0.160	0.033	0.325	0.340	0.268	0.274	0.488	0.095	0.298	(0.714)

Given that the measurement model evaluation is satisfactory and the measures quality is acceptable, the second stage is to conduct structural model analysis.

6.3.3 Structural Model Analysis

The structural model with latent variables reflects the theories and concepts behind the path model. Hence, it is crucial to assess how strong and significant these hypothesised relationships are. According to Sarstedt et al. (2014), the structural model analysis focuses on testing hypotheses through relationships between constructs. Thus, it indicates the degree to which these relationships are meaningful and significant. Ultimately, the assessment of relationships among constructs indicates the prediction quality of the model.

Following the PLS-SEM Evaluation Procedure (Figure 17), the evaluation criteria for structural model include collinearity, predictive relevance (R^2 and Q^2), and significance relevance of path coefficients; that is, how theories fit reality in terms of path model. As far

as collinearity is concerned, it is argued that prior to evaluating the relationships' strength and significance between constructs, it is crucial to assess the collinearity between constructs. The reason is that if collinearity exists between two constructs in the first place, then these constructs are highly correlated. Hence, the evaluation of path coefficient β and p values is biased (Sarstedt et al., 2014).

Collinearity Evaluation

The first step to applying collinearity between constructs is to identify each set of predictor variables. As far as this study's structural model is concerned, the constructs of post-materialistic values, desirability, feasibility, and entrepreneurial self-efficacy are a set of predictors for goal intention. Likewise, the constructs of goal intention, optimism, implementation intention, action orientation, and coping with failure are a set of predictors for self-regulation. Each predictor construct's tolerance (VIF) value should be higher than 0.20 (lower than 5) (Hair et al., 2014, p.186). As given in Table 34, all VIF values are within the threshold of $5.0 > \text{VIF} > 0.20$. Hence, there is no collinearity among all predictors' constructs in the model.

Table 34 Full Collinearity VIF

Constructs	VIF ($5.0 > \text{VIF} > 0.20$)
PMAT_VAL	1.142
DES	1.507
FEAS	1.808
ESE	1.866
GOI_NT	2.317
IMP_INT	1.556
OPTIM	1.453
ACT_OR	1.290
COP_F	1.470
REG	1.582

Structural Relationships Evaluation

The structural model consists of relationships between constructs. These relationships reflect the suggested hypotheses in this research. Two main assessments examine the relationships between constructs; these are *path coefficient* β and *p values* (Hair et al., 2014). The significance of path coefficients indicates inner model quality (Sarstedt et al., 2014). Further, coefficients of determination (R^2) is another evaluation stage in the assessment procedure of the structural model. Each endogenous construct has R^2 value that indicates how well and accurately it is explained by its antecedent(s) (Sarstedt et al., 2014). The structural model is presented in Figure 25.

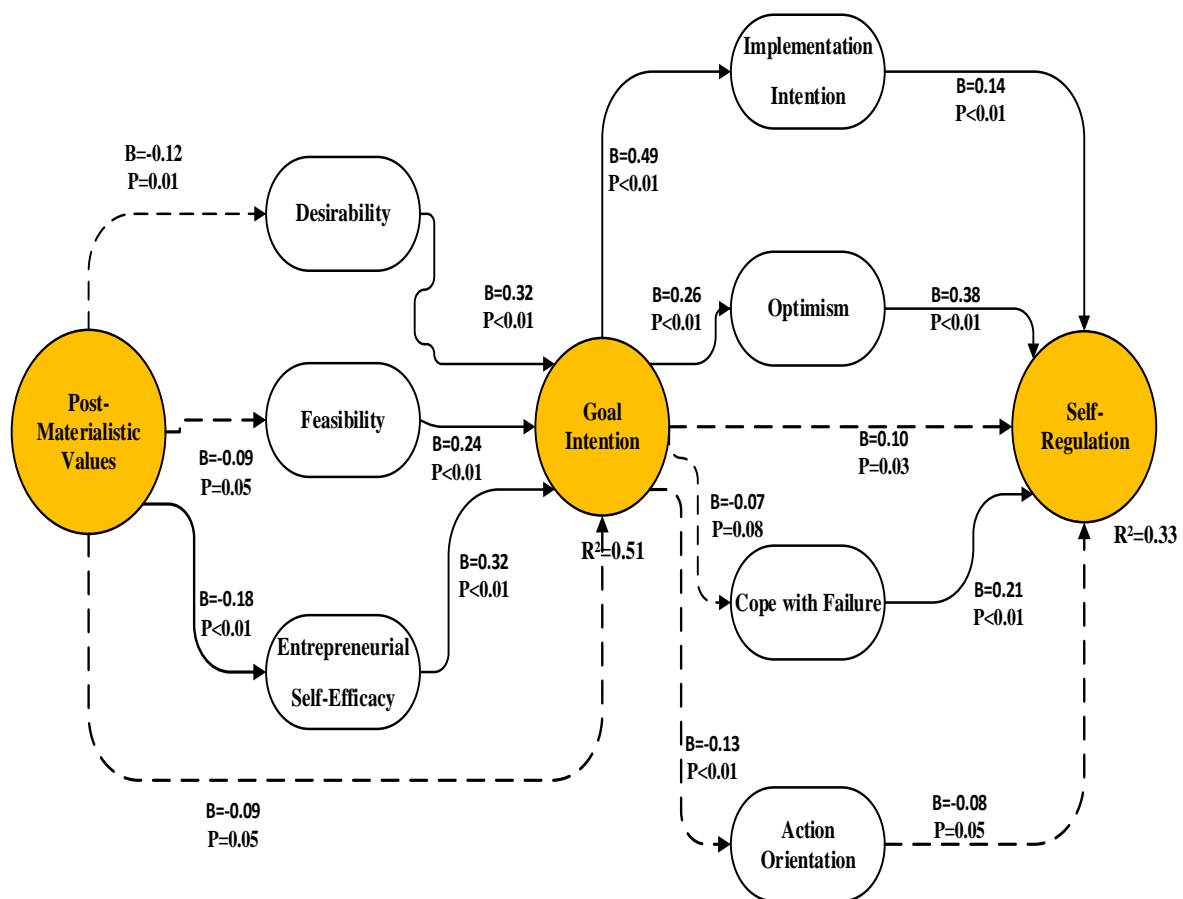


Figure 25 Structural Model

Applying structural model analysis procedure using path coefficients β and p values has generated Table 35.

Table 35 Path coefficients β and p values

Relationships	Sign	Path Coefficient β	p value
GO_INT \rightarrow REG	+	0.10	0.03
DES \rightarrow GO_INT	+	0.32	<0.01
FEAS \rightarrow GO_INT	+	0.24	<0.01
ESE \rightarrow GO_INT	+	0.32	<0.01
GO_INT \rightarrow IMP_INT	+	0.49	<0.01
IMP_INT \rightarrow REG	+	0.14	<0.01
GO_INT \rightarrow OPTIM	+	0.26	<0.01
OPTIM \rightarrow REG	+	0.38	<0.01
GO_INT \rightarrow COP_F	-	0.07	0.08
COP_F \rightarrow REG	+	0.21	<0.01
GO_INT \rightarrow ACT_OR	-	0.13	<0.01
ACT_OR \rightarrow REG	-	0.08	0.05
PMAT_VAL \rightarrow GO_INT	-	0.09	0.05
PMAT_VAL \rightarrow DES	-	0.12	0.01
PMAT_VAL \rightarrow FEAS	-	0.09	0.05
PMAT_VAL \rightarrow ESE	-	0.18	<0.01

The table above provides several major indicators about the relationships between constructs. As far as determinants of self-regulation are concerned, entrepreneurial goal intention has no direct effect on self-regulation. However, it affects self-regulation indirectly and positively through implementation intention and optimism. Although entrepreneurial goal intention

negatively influences action orientation, it has no effect on coping with failure. Further, coping with failure has a strong relationship with self-regulation whereas no relationship was found between action orientation and self-regulation.

As far as determinants of entrepreneurial goal intention are concerned, the structural model reveals that desirability, feasibility, and entrepreneurial self-efficacy are all positively correlated to entrepreneurial goal intention. The strengths of these relationships are 0.32, 0.24, and 0.32 respectively. Further, among the suggested direct and indirect influences of post-materialistic values on entrepreneurial goal intention, it was found that post-materialistic values affect entrepreneurial goal intention indirectly and negatively only through entrepreneurial self-efficacy.

The coefficients of determination (R^2) of the outcome variable of a model reflect the model's prediction accuracy. As stated by Liao and Dan McGee (2003, p.161), "the proportion of variation in the outcome variable explained by the model". It ranges from (0.0) to (1.0) where the higher R^2 value the better explanatory power of the model. In this study model, there are two main outcomes – *entrepreneurial goal intention* (GO_INT) and *self-regulation* (REG). The R^2 value of (GO_INT) is 0.51 and the R^2 value of (REG) is 0.33.

As far as entrepreneurial goal intention is concerned, previous studies in the entrepreneurship field have revealed different R^2 values of entrepreneurial goal intention. Some of these studies have shown R^2 to range from 40 to 54 which matches with the R^2 value of this study. These studies are listed in Table 36.

Table 36 Range of intention models R²

Author	Country	R ²
Krueger (1993)	USA	54
Zhao et al., (2005)	USA	42
Solesvik et al. (2012)	Ukraine	40
Krueger (2000)	USA	41

The effect size (f^2) aims to test the impact of explanatory latent variables on endogenous latent variables of the model. This measure identifies the change in the R² of an endogenous construct due to omitting an exogenous construct. The suggested effect size range includes small, medium, and large effect, which reflects the thresholds of 0.02, 0.15, and 0.35 respectively (Hair et al., 2014). The effect size (f^2) for the study is given in the following table.

Table 37 The Effect Size (f^2)

Correlations	(f^2)	Description
GO_INT → REG	0.027	Non-significant
DES → GO_INT	0.175	Moderate
FEAS → GO_INT	0.132	Weak
ESE → GO_INT	0.187	Moderate
GO_INT → IMP_INT	0.242	Moderate
IMP_INT → REG	0.039	Weak
GO_INT → OPTIM	0.070	Weak
OPTIM → REG	0.193	Moderate
GO_INT → COP_F	0.005	Non-significant
COP_F → REG	0.073	Weak

GO_INT → ACT_OR	0.017	Moderate
ACT_OR → REG	0.027	Non-significant
PMAT_VAL → GO_INT	0.016	Non-significant
PMAT_VAL → DES	0.014	Non-significant
PMAT_VAL → FEAS	0.008	Non-significant
PMAT_VAL → ESE	0.032	Moderate

Table 37 reveals that, among suggested predictors of entrepreneurial goal intention, it was found that desirability and entrepreneurial self-efficacy have higher effect on entrepreneurial goal intention than feasibility does. Further, among influencers of self-regulation, the study reveals that optimism has the highest effect size. In the case of the effect size of post-materialistic values, the results have shown that post-materialistic values only affect entrepreneurial self-efficacy moderately.

In addition to R^2 which evaluated model accuracy, Q^2 evaluates the predictive relevance of each dependent variable. It reflects the relevance between indicators of each construct and other constructs' indicators. In contrast to the R^2 level which increases as more independent variables are added, predictive relevance overcomes this limitation. The Q^2 value of greater than zero indicates that the model has predictive relevance. In this study, the Q^2 values of all endogenous latent variables are higher than zero indicating the path model predictive relevance. This is given in Table 38.

Table 38 Predictive Relevance of Endogenous Constructs (Q²)

	DES	FEAS	ESE	GO_ITN	IMP_INT	OPTIM	ACT_OR	PLAN	COP_F	REG
Q ² (>0)	0.015	0.008	0.031	0.510	0.243	0.072	0.018	0.007	0.364	0.015

Mediator Analysis

This study hypothesises that post-materialistic values influence entrepreneurial goal intention directly and indirectly through the *deliberative* mind-set. Further, it hypothesises that entrepreneurial goal intention affects self-regulation capacity directly and indirectly through the *implemental* mind-set. Hence, this part of the analysis aims to examine these mediation relationships.

According to Hair et al. (2014), a construct should fulfil two criteria to act as a mediator. The first is that the direct relationship between the main constructs without the potential mediators is significant. The second is that the indirect relationships through the suggested mediators should be significant. In this study, the suggested mediators between goal intention and self-regulation are implementation intention, optimism, action orientation, and coping with failure. These constructs represent the implemental mind-set as given in Figure 26.

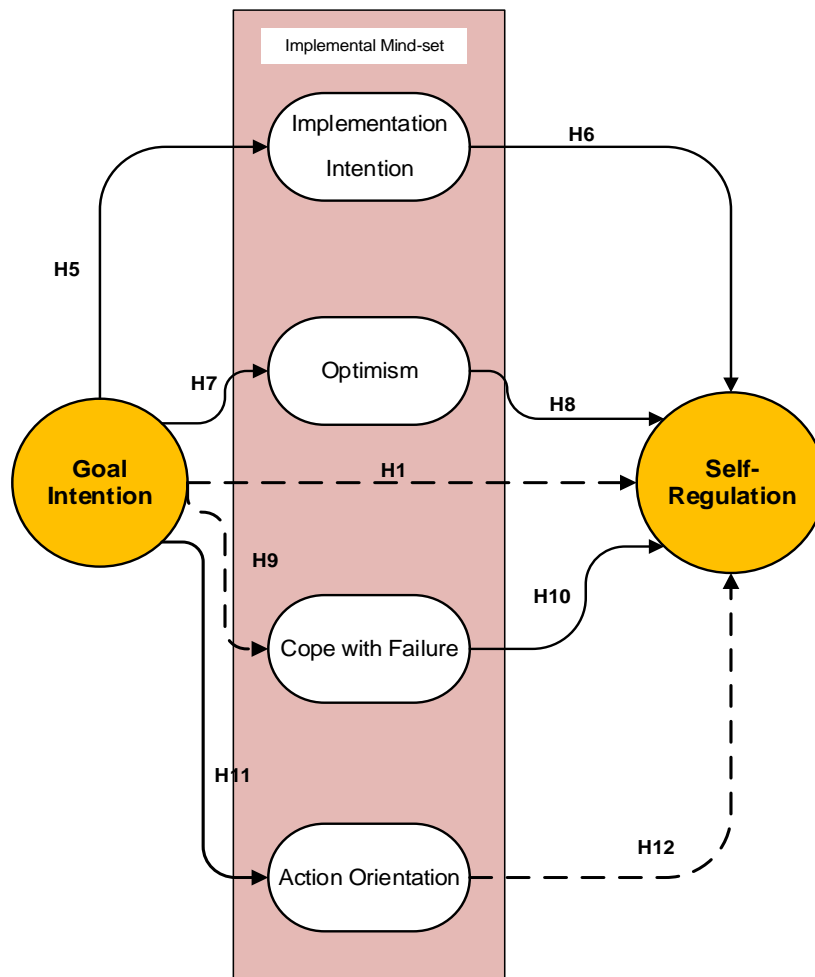


Figure 26 Mediation of the Implemental Mind-Set

The first criterion is applicable as the direct relationship between goal intention and self-regulation without the potential mediators is significant ($\beta=0.28$, $p<0.01$). The second criterion is that the indirect relationships after including the suggested mediators should be significant. In other words, do the additional components indirectly provide information on the direct effect from goal intention to self-regulation? Table 39 illustrates how both criteria of direct and indirect relationships for each potential mediator are evaluated.

Table 39 Validating Mediation Relationship

	Relationship	Path Coefficient	P Value	Nature	Mediation
Step One Direct (without the potential mediating variables)	GO_INT → REG	0.28	<.01	Significant	
Step Two (with the potential mediating variables)					
Direct	GO_INT → REG	0.10	0.03	Non-Significant	Full Mediation
Indirect (Through implementation intention)	GO_INT → IMP_INT	0.49	<.01	Significant t	
	IMP_INT → REG	0.14	<.01	Significant t	
Direct	GO_INT → REG	0.10	0.03	Non-Significant	Full Mediation
Indirect (Through optimism)	GO_INT → OPTIM	0.26	<.01	Significant t	
	OPTIM → REG	0.38	<.01	Significant t	
Direct	GO_INT → REG	0.10	0.03	Non-Significant	No Mediation
Indirect (Through action orientation)	GO_INT → ACT_OR	-0.13	<.01	Significant	
	ACT_OR → REG	-0.08	0.05	Non-Significant	
Direct	GO_INT → REG	0.10	0.03	Non-Significant	No Mediation
Indirect (Through coping with failure)	GO_INT → COP_F	-0.07	0.08	Non-Significant	
	COP_F → S-REG	0.21	<.01	Significant	

It is apparent from the table that the direct relationship between goal intention and self-regulation is significant without the potential mediators. However, as the potential mediators

are included in the model, the direct relationship is changed to non-significant. This means that there is full mediation by one or more mediators (Hair et al., 2014). Looking at the indirect relationships through potential mediators, the only significant relationships along both directions of potential mediators are through implementation intention and optimism. Hence, both act as full mediators for the relationship between goal intention and self-regulation.

The next step is to find how much the indirect relationship absorbs out of the direct relationship between goal intention and self-regulation through these mediators (Hair et al., 2014; Sarstedt et al., 2014). In other words, the intention is to find the effect size that each mediator accounts for using the value account (VAF) formula (Klarner et al, 2013, Hair et al, 2014),

$$VAF = (Pim * Pmd) / (Pim * Pmd + Pid),$$

where

Pim is the path between the independent and mediator,

Pmd is the path between the mediator and the dependent variable, and

Pid is the path between the independent and the dependent variables.

The effect size of mediation is given in Table 40.

Table 40 Effect Size of Mediation

Mediator	Pim	Pmd	Pid	VAF
OPTIM	0.26	0.38	0.10	49.7%
IMP_INT	0.49	0.14	0.10	40.7%

Consequently, optimism accounts for 49.7% of the variance of the direct relationship between goal intention and self-regulation. Similarly, implementation intention accounts for 40.7% of the variance of the direct relationship between goal intention and self-regulation. Further, the strength of the direct relationship has decreased from 0.28 to 0.10. This means that both implementation intention and optimism should provide information about the direct relationship between goal intention and self-regulation.

As far as mediation between post-materialistic values and goal intention is concerned, the potential mediators include desirability, feasibility, and entrepreneurial self-efficacy as given in Figure 27.

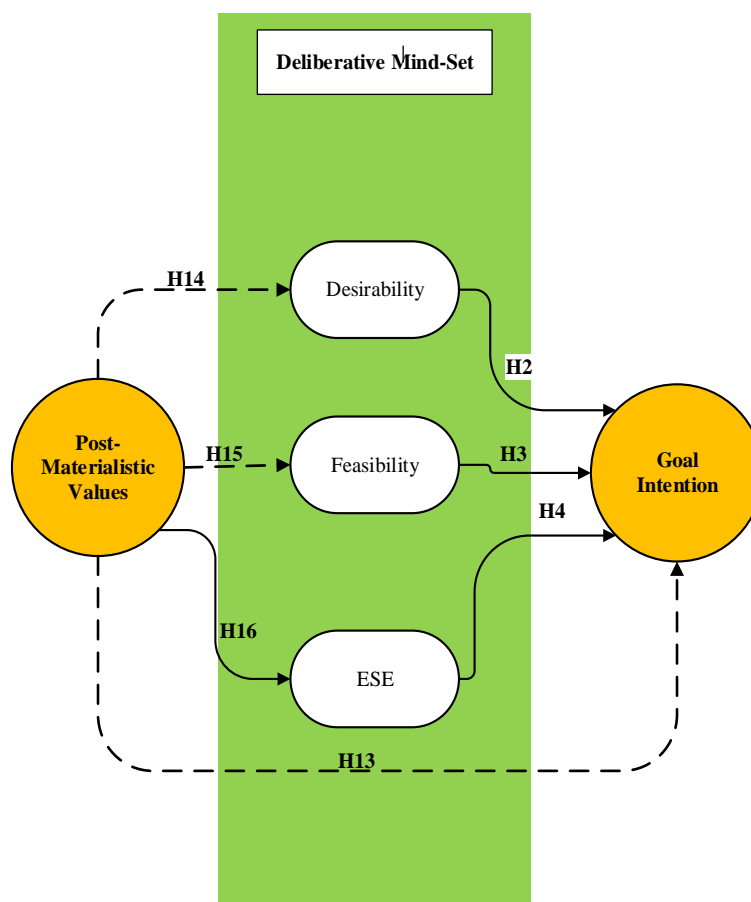


Figure 27 Mediation of Deliberative Mind-Set

The first mediation criterion is applicable as the direct relationship between post-materialistic values and goal intention without the potential mediators is significant ($\beta=-0.19$, $p<0.01$). The second criterion is that the indirect relationships after including the suggested mediators should be significant. In other words, do the additional components provide information on the direct relationship between post-materialistic values and goal intention? Both criteria of direct and indirect relationships for each potential mediator are evaluated in Table 41.

Table 41 Validating the Mediation Relationship

	Relationship	Path Coefficient	P Value	Nature	Mediation
Step One Direct (without the potential mediating variables)	PMAT_VAL \rightarrow GO_INT	-0.19	<.01	Significant	
Step Two (with the potential mediating variables)					
Direct	PMAT_VAL \rightarrow GO_INT	-0.09	0.05	Non-Significant	No Mediation
Indirect (Through desirability)	PMAT_VAL \rightarrow DES	-0.12	0.01	Non-Significant	
	DES \rightarrow GO_INT	0.32	<.01	Significant	
Direct	PMAT_VAL \rightarrow GO_INT	-0.09	0.05	Non-Significant	No Mediation
Indirect (Through feasibility)	PMAT_VAL \rightarrow FEAS	-0.09	0.05	Non-Significant	
	FEAS \rightarrow GO_INT	0.24	<.01	Significant	
Direct	PMAT_VAL \rightarrow GO_INT	-0.09	0.05	Non-Significant	Full Mediation
Indirect (Through entrepreneurial self-efficacy)	PMAT_VAL \rightarrow ESE	-0.18	<.01	Significant	
	ESE \rightarrow GO_INT	0.32	<.01	Significant	

It is apparent from Table 41 that the direct relationship between post-materialistic values and goal intention is significant without the potential mediators. However, as the potential mediators are included in the model, the direct relationship is changed to non-significant.

This means that there is full mediation by one or more mediators. Looking at the indirect relationships through potential mediators, the only significant relationship along both directions of potential mediators is through entrepreneurial self-efficacy. Hence, entrepreneurial self-efficacy acts as a full mediator for the relationship between post-materialistic values and goal intention.

Applying the value account (VAF) formula to find out the effect size that the entrepreneurial self-efficacy (ESE) mediator accounts for is given in Table 42.

Table 42 Effect Size of Mediation

Mediator	Pim	Pmd	Pid	VAF
ESE	-0.18	-0.32	-0.09	39%

Consequently, entrepreneurial self-efficacy accounts for 39% of the variance of the direct relationship between post-materialistic values and goal intention. This means that entrepreneurial self-efficacy should provide information about the direct relationship between post-materialistic values and goal intention.

In summary, the mediation analysis reveals that the deliberative mind-set mediates the relationship between post-materialistic values and entrepreneurial goal intention. However, it is found that this mediation is only through entrepreneurial self-efficacy. In other words, post-materialistic values reduce entrepreneurial self-efficacy which in turn decreases entrepreneurial goal intention. Further, the mediation analysis has shown that the implemental mind-set mediates the relationship between entrepreneurial goal intention and self-regulation. However, it is found that this mediation is only through implementation intention and optimism. In other words, formulating concrete entrepreneurial goal intention

increases implementation intention and optimism which in turn increases self-regulation. The mediation analysis result is given in Figure 28.

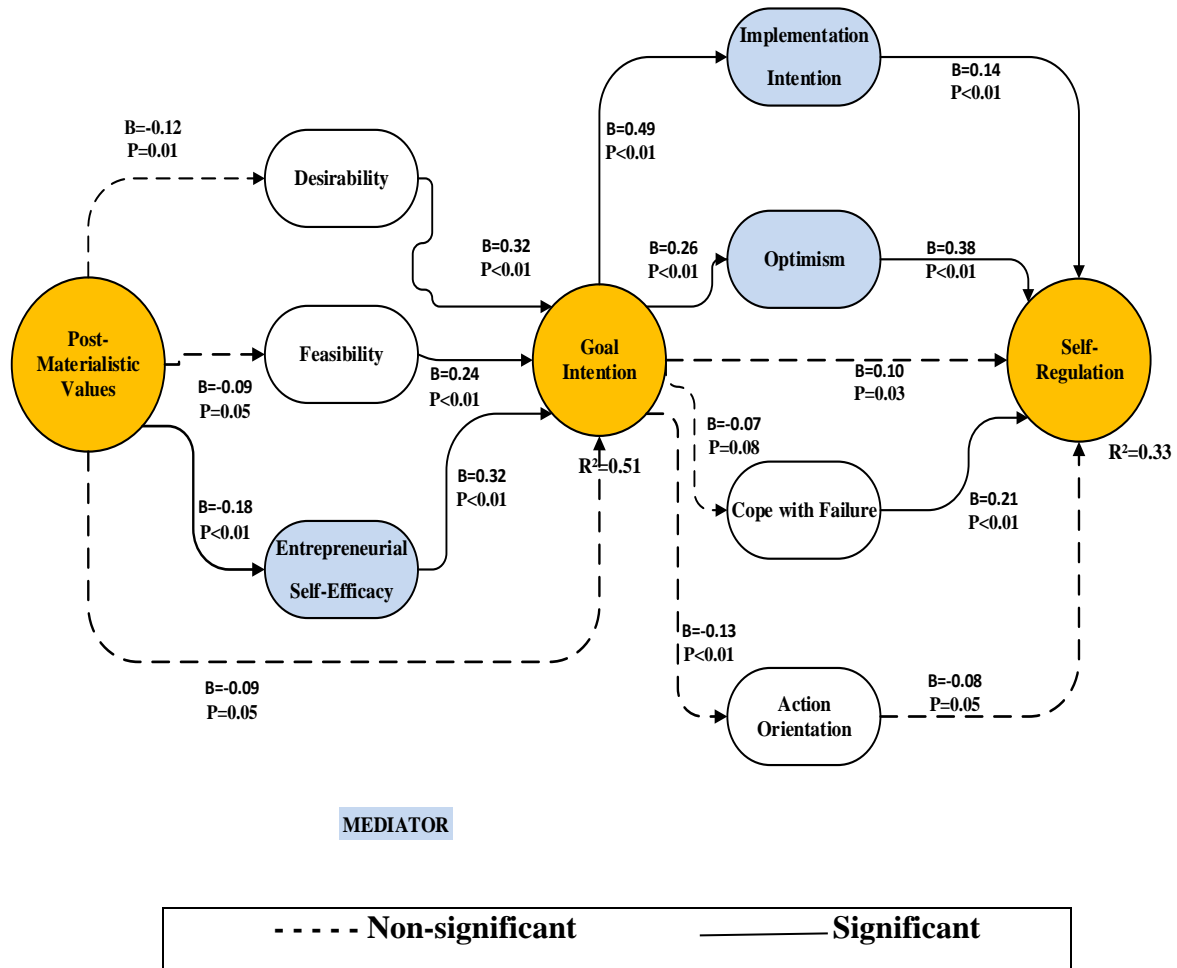


Figure 28 Mediators and Significant Relationships

6.4. Summary of the Results and Hypotheses Testing

Applying the analysis outcomes, the research hypotheses can be accepted or rejected, as given in Table 54. As far as formulating concrete entrepreneurial goal intention is concerned, it was found that desirability, feasibility, and entrepreneurial self-efficacy are all positively related to entrepreneurial goal intention. However, post-materialistic values have no direct effect on entrepreneurial goal intention. Hence, hypotheses H2, H3 and H4 are accepted whereas H13 is rejected. With respect to size of effects (f^2), it was found that both desirability

and entrepreneurial self-efficacy have a moderate effect on entrepreneurial goal intention whereas feasibility affects entrepreneurial goal intention weakly. The strength of the link between these predictors and entrepreneurial goal intention (Path Coefficient β) is similar in case of desirability and entrepreneurial self-efficacy with value of 0.32. However, it is lower for feasibility with value of 0.24. The coefficient of determination (R^2) of entrepreneurial goal intention is 0.51. This indicates that desirability, feasibility, and entrepreneurial self-efficacy account for 0.51 variance of entrepreneurial goal intention which is within the range of entrepreneurship studies.

As far as mediation analysis between post-materialistic values and entrepreneurial goal intention is concerned, it was found that post-materialistic values have no effect on either desirability or feasibility. Thus, hypotheses H14 and H15 are rejected and desirability and feasibility are not mediators. Conversely, post-materialistic values influence entrepreneurial self-efficacy; thus hypothesis H16 is accepted. Consequently, entrepreneurial self-efficacy is a full mediator between post-materialistic values and entrepreneurial goal intention with value account (VAF) of 39%, moderate size effect (f^2), and relationship strength (Path Coefficient β) of 0.18.

As far as self-regulation capacity is concerned, it was found that entrepreneurial goal intention has no direct effect on self-regulation; hence, H1 is rejected. Further, it was recorded that suggested self-regulation determinants of implementation intention, optimism, and coping with failure are all positively related to self-regulation; thus, hypotheses H6, H8 and H10, respectively, are accepted. Among these self-regulation determinants, it was shown that optimism comprises moderate size effect (f^2) on self-regulation capacity with the highest link strength (Path Coefficient β) of 0.38. However, both implementation intention and coping with failure comprise weak effect on self-regulation with relationship strength (Path

Coefficient β) of 0.14 and 0.21, respectively. The suggested self-regulation determinant of action orientation has no effect on self-regulation hence, H12 is rejected.

The mediation analysis between entrepreneurial goal intention and self-regulation has revealed that self-regulation determinants of implementation intention and optimism mediate the relationship between goal intention and self-regulation. Thus, hypotheses H5 and H7 are supported and both implementation intention and optimism are full mediators with value accounts (VAF) of 49.7% and 40.7%, respectively. Conversely, entrepreneurial goal intention has no influence on coping with failure, but affects action orientation negatively; thus, rejecting H9 and accepting H11, respectively. Although entrepreneurial goal intention is significantly related to action orientation (H11), action orientation has no effect on self-regulation (H12). Hence, action orientation is not a mediator between entrepreneurial goal intention and self-regulation. Further, although coping with failure is significantly related to self-regulation (H10), it has no relationship with entrepreneurial goal intention (H9). Hence, coping with failure is not a mediator between entrepreneurial goal intention and self-regulation. The coefficient of determination (R^2) of self-regulation is 0.33. This indicates that the model has predictive accuracy of 0.33 which explains the variance of self-regulation. Having confirmed the measurement quality and examined the suggested hypotheses through structural analysis, next, these results are discussed.

Chapter Seven: Discussion

In the previous chapters, the researcher has identified the knowledge gap, research questions, hypotheses, research model, and methodology. Further, measurements and survey results have been analysed. This chapter discusses the study results obtained in chapter five. It establishes links between the survey results, previous studies, theories, and recommendations. In addition, the discussion integrates the study findings to answer the research questions and fulfil its objectives and aim. However, prior to discuss the research findings, it is vital to briefly reconsider the research gap, model, and questions.

7.1 Research Gap and Questions

This section revisits the research gap, model, and questions prior to discussing the findings. As far as the research gap is concerned, whilst some people have many intentions, they fail to translate their intentions into action (Gollwitzer, 1993). This is further true in the entrepreneurship domain where people have entrepreneurial intention but they fail to start their own business (Gielnik et al., 2014). The intention-action gap is even more apparent at country level where some countries achieved high entrepreneurial intention but their entrepreneurial activity score is far below the average of comparable countries (GEM, 2009, 2010). This conflict is significant as it can discourage the advantages of venture creation (Van Gelderen et al., 2015).

Scholars have raised this concern, and expressed the urgency to tackle the inconsistency between entrepreneurial intention and action (Kautonen et al., 2013; Fayolle & Linan, 2014; Van Gelderen et al., 2015). This is in line with previous studies which have addressed the need to explore the link between venture creation intention and reality (Krueger et al., 1993, 2000). Despite the importance of translating entrepreneurial intention into action, the scarcity of studies in this matter is surprising (Kautonen et al., 2013). The entrepreneurship literature

is rich in studies about entrepreneurial goal intention and nascent entrepreneurship whereas knowledge about converting entrepreneurial intention into action is poor (Laspita et al., 2012; Kautonen et al., 2013; Fayolle & Linan, 2014; Van Gelderen et al., 2015). A meta-analytic study about entrepreneurial intent found that only three out of 98 studies have been published about the entrepreneurial intention-action relationship in the previous 25 years (Schlaegel & Koenig, 2014). However, these studies have several limitations.

First, they adopted the theory of planned behaviour (TPB) and/or entrepreneurial event model (EEM) to predict entrepreneurial behaviour (Schlaegel & Koenig, 2014). Thus, they assumed that entrepreneurial intention is the only and best predictor of venture creation (Kautonen et al., 2013). However, empirical studies confirmed that entrepreneurial intention is insufficient to explain action variance (Ilouga et al., 2014; Van Gelderen et al., 2015). Kautonen et al. (2013) conducted a longitudinal study of the entrepreneurial intention-action link by adopting full TPB and found that the model explains 39% of entrepreneurial action. However, 84% of intenders failed to translate their entrepreneurial intention into action.

Second, the three studies about the entrepreneurial intention-action link which have been addressed in the meta-analysis study (Schlaegel & Koenig, 2014) have been criticised due to their scope and methodology limitations (Kautonen et al., 2015). Third, a recent longitudinal study about converting entrepreneurial intention into action revealed that the TPB model explained 31% of start-up action. However, 63% of participants failed to carry out their entrepreneurial intention (Kautonen et al., 2015). Another longitudinal study about translating entrepreneurial intention into action found an inconsistency of 69% between entrepreneurial goal intention and action (Van Gelderen et al., 2015).

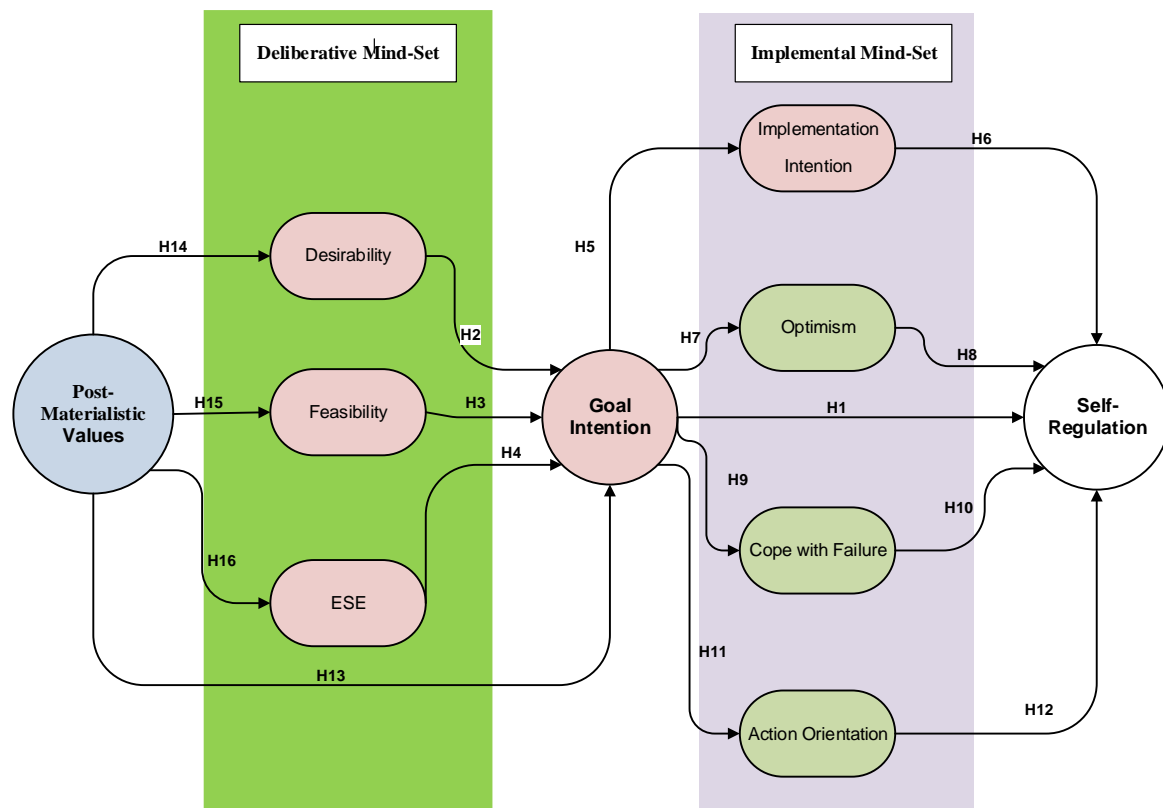
Consequently, to bridge the intention-action gap, scholars emphasised the need for another predictor which is volitional and most proximal to action, namely, self-regulation (Kuhl &

Beckmann, 1985; Kuhl & Fuhrmann, 1998; Gollwitzer, 1999; Orbell, 2003; Sniehotta et al., 2005). This knowledge gap is further salient in the entrepreneurship domain (Ilouga et al., 2014; Van Gelderen et al., 2015; Kautonen et al., 2015). Although Van Gelderen et al. (2015) addressed the need for self-control in bridging the entrepreneurial intention-action gap, their work only highlighted the moderation effect rather than exploring self-regulation determinants.

Based on the models of self-regulation (Carver & Scheier, 1982, 1990), this current study fills this knowledge gap by exploring self-regulation determinants that encounter difficulties of action enactment of entrepreneurial goal intention, thus, facilitating the progress from entrepreneurial goal intention to entrepreneurial potential (self-regulation). This is in line with the hierarchy model of volition (Hikkerova et al., 2016). Further, Gollwitzer (2003) suggested that moving from a deliberative mind-set to an implemental mind-set can bridge the intention-action gap. Hence, this study follows this suggestion by conceptualising the entrepreneurial deliberative and implemental mind-sets and integrating them with the suggested self-regulation determinants.

In this sense, this research can contribute to the entrepreneurship field from several perspectives. First, it identifies deliberative and implemental mind-sets in the entrepreneurship context. Second, it explores the reasons behind the entrepreneurial intention-action gap. Third, it extends the existing entrepreneurial intention models with self-regulation determinants. Fourth, it enhances our understanding of the cognitive processes underlying the formulation of entrepreneurial intention. Fifth, it integrates self-regulation determinants with the entrepreneurship process. Finally, this study sheds light on the influence of unsupportive cultural values on entrepreneurship.

Reconsidering the research model (Figure 19 - section 4.5), the present study suggested the following entrepreneurial mind-set model to address the intention-action gap.



The research model reflects several research questions that this study intended to answer. To discuss the research outcomes, it is crucial to recall these research questions:

Research Question 1:

What are the determinants of entrepreneurial goal intention?

Research Question 2:

What are the self-regulation determinants?

Research Question 3:

Does the implemental mind-set mediate the relationship between goal intention and self-regulation?

Research Question 4:

What is the influence of post-materialistic values on goal intention?

Research Question 5:

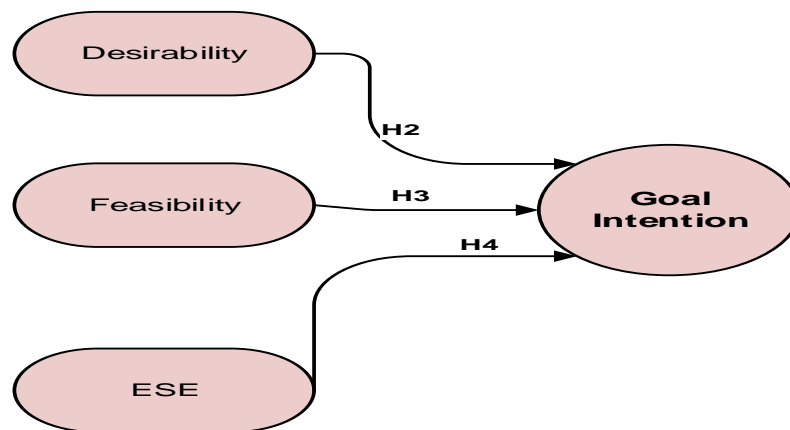
Does a deliberative mind-set mediate the relationship between post-materialistic values and goal intention?

The following discussion sections are structured considering the above questions. The first section discusses determinants of goal intention at the pre-decision phase. This section answers the first research question using hypotheses H2, H3 and H4. The second section discusses self-regulation determinants at the pre-action phase. This section answers the second research question using hypotheses H6, H8, H10 and H12. The third section discusses navigating from the deliberative mind-set to the implemental mind-set. This section answers the third research question by discussing the mediation effect of the implemental mind-set using hypotheses H1, H5, H6, H7, H8, H9, H10, H11 and H12.

The fourth section discusses the effects of post-materialistic values on the deliberative mind-set (pre-decision phase). This section answers the fourth research question using hypotheses H14, H15 and H16. The fifth section discusses enhancing the influence of post-materialistic values on entrepreneurial goal intention. This section answers the fifth research question by discussing the mediation effect of the deliberative mind-set using hypotheses H2, H3, H4, H13, H14, H15 and H16.

7.2 The determinants of entrepreneurial goal intention (RQ1)

The results about the determinants of entrepreneurial goal intention supported hypotheses H2, H3, and H4. These hypotheses were presented in section 4.2.5. (Figure 13) as follows.



The hypotheses expected that both commitment (H2 and H3) and entrepreneurial self-efficacy (H4) create a deliberative mind-set to facilitate tasks of formulating goal intention. The findings of significant relationships between both desirability and feasibility with goal intention (H2 and H3) confirmed the entrepreneurial event model (EEM) and are in line with other literature findings (Krueger et al., 2000; Ilouga et al., 2014). The finding of a significant relationship between entrepreneurial self-efficacy and goal intention confirmed the action control process (Kuhl & Beckmann, 1985) and is in line with other literature such as goal theory (Bandura & Locke, 2003; Locke & Latham, 2006;). This is further confirmed by the mind-set theory stating that a deliberative mind-set facilitates the task of deciding and formulating goal intention (Gollwitzer, 1990; Henderson et al., 2007).

These relationships explain the importance of understanding the cognitive processes underlying the formulating of entrepreneurial goal intention which entrepreneurship literature emphasised recently (Fayolle & Linan, 2014). In fact, the concept of these cognitive processes was introduced by the Rubicon Model developed by Heckhausen (1986) which identified four action phases; namely, pre-decision, pre-action, action, and post-action. It was argued that the pre-decision phase is motivational whereas the pre-action and action phases are volitional. Hence, this part of the model reflects the motivational stage of intention formulation.

Later, Gollwitzer et al. (1990) expanded this concept by arguing that each action phase is accompanied by a distinct mind-set which facilitates tasks at each stage. The pre-decision phase is accompanied by the deliberative mind-set whereas the pre-action phase is accompanied by the implemental mind-set. The deliberative mind-set facilitates the tasks of deliberating about alternatives and formulating goal intention whereas the task of the implemental mind-set is to facilitate initiating action. Thus, this part of the model shows the deliberative mind-set which facilitates the task of goal setting.

Gollwitzer (1993) argued that there is prerequisite to bridge the intention-action gap, namely, goal commitment. The need of commitment was also emphasised by the self-regulatory process developed by Kuhl and Beckmann (1985). The process emphasised the role of commitment to convert progress from intention to self-regulation. The commitment is explained by desirability and feasibility (Ilouga et al., 2014). Hence, this part of the model signifies the importance of commitment in formulating strong goal intention.

As far as the entrepreneurial goal intention-action gap is concerned, this part of the model explains the pre-decision phase. At the pre-decision phase, people tend to have many wishes and needs to be fulfilled. They might think of having their own business at some point in time. They deliberate and analyse pros and cons of performing entrepreneurial activity (Gollwitzer, 1993). Hence, they think about the attractiveness of performing entrepreneurial activity (desirability) as well as about their ability to start a business (feasibility) (Krueger et al., 2000). This indicates that they have the commitment for entrepreneurial activity (Ilouga et al., 2014) and they are ready to progress to the pre-action phase. However, in the case of a difficult and complex phenomenon such as entrepreneurship (Noorderhaven et al., 2004), they encounter difficulties where they need high self-efficacy (Kuhl & Beckmann, 1985). This enables them to establish concrete goal intention, progress to the pre-action phase

(Gollwitzer, 1999), and hence gain accessibility to self-regulation competencies (Kuhl & Beckmann, 1985).

The entrepreneurial self-efficacy may emerge from the way they appraise the idea of creating a venture as either challenge or threat (Lazarus & Folkman, 1984). Appraising a stressful situation as either threat or challenge reveals different emotions, reactions, and outcomes. When a person evaluates starting a business as threat, it means that they expect potential loss and negative effect on wellbeing. This primary evaluation is often accompanied by negative emotions such as doubt and low self-efficacy (Lazarus & Folkman, 1984). Consequently, they will disengage from the idea of doing business.

When they judge entrepreneurship as challenging, however, it means that they expect potential gain and positive effect on wellbeing. This primary judgement is often accompanied with positive emotions such as confidence and self-efficacy (Lazarus & Folkman, 1984). Consequently, they formulate concrete entrepreneurial goal intention with desirability, feasibility, and entrepreneurial self-efficacy and progress to the pre-action phase (Gollwitzer, 1993).

Looking at these cognitive processes that underlie the formulating of entrepreneurial goal intention enabled the researcher to highlight possible reasons for the entrepreneurial goal intention-action gap. At this early stage of the action phase, lack of desirability, feasibility, and entrepreneurial self-efficacy can lead to inability to formulate strong goal intention. Hence, the weak entrepreneurial goal intention will stay in memory without clear goals about performing entrepreneurial activity in the future. Thus, the likelihood of translating such intention into action is low. Commitment is explained by desirability and feasibility (Ilouga et al., 2014). Hence, another explanation is that formulating entrepreneurial goal intention

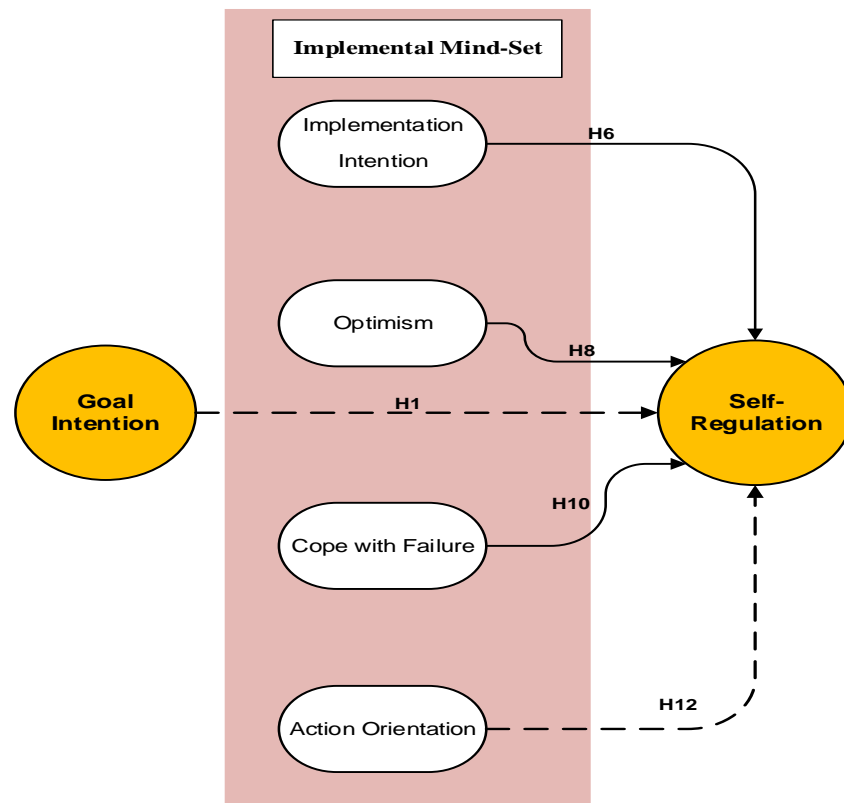
without commitment and entrepreneurial self-efficacy can lead to weak entrepreneurial goal intention.

As individuals progress to the pre-action phase, they face the difficulty of initiating action due to competing desires and social pressure. Hence, they need a self-regulation mechanism. However, formulating weak entrepreneurial goal intention without commitment and entrepreneurial self-efficacy indicates low readiness to access the self-regulation mode. This can inhibit them from accessing self-regulation competencies (Kuhl & Fuhrmann, 1998). Hence, they cannot translate their entrepreneurial goal intention into action. It is worth noting that formulating strong entrepreneurial goal intention can signal the readiness to implement self-regulation mechanisms but it is not a guarantee for action initiation (Kuhl & Fuhrmann, 1998). Consequently, there is a need for applying self-regulation mechanisms at the post-decision/pre-action phases.

To sum up, this section addresses the first research question of identifying the determinants of goal intention. It confirmed three factors: desirability, feasibility, and entrepreneurial self-efficacy.

7.3 The self-regulation determinants (RQ2)

The findings of self-regulation determinants for the implemental mind-set did not confirm the relationship between goal intention and self-regulation (H1) and the relationship between action orientation and self-regulation (H12). However, the results confirmed that implementation intention, optimism, and coping with failure are all self-regulation determinants. These factors were represented in section 4.2.7. (Figure 14) by hypotheses H6, H8 and H10, respectively.



As people progress to the action initiation stage with strong entrepreneurial goal intention, they tend to face difficulties such as competing desires and social pressure. Hence, they need to access a self-regulation mode (Kuhl & Beckmann, 1985). Consequently, the study expected that formulating strong goal intention through desirability, feasibility, and entrepreneurial self-efficacy will result in accessibility to self-regulation (H1); however, this was not confirmed by the results as H1 was rejected.

The insignificance of the direct relationship between entrepreneurial goal intention and self-regulation can be attributed to several reasons. First, it supported the argument that simply formulating entrepreneurial goal intention is not enough to initiate intention (Kautonen et al., 2013; Ilouga et al., 2014; Van Gelderen et al., 2015) even with commitment (Gollwitzer & Sheeran, 2006) because it “does not prepare people sufficiently for dealing with self-regulatory problems” (Gollwitzer & Sheeran, 2006, p.86). Second, it is in accordance with the argument of Marsh et al. (2002) stating that some individuals need to follow three

processes to carry out intention; these processes are detecting goal, retrieving intention, and managing intention alongside other ongoing activity. This stage of formulating entrepreneurial goal intention is equivalent to the first process. However, there is a need to progress to the next two processes to carry out the intention; namely, retrieving intention and managing intention alongside other ongoing activity.

Third, it is in accordance with the theory of self-control (self-regulatory process). The theory articulates the need for self-regulation to guide the initiation and maintenance of intention (Kuhl & Beckmann, 1985). Fourth, although the self-regulation process proposed commitment and self-efficacy as prerequisites for self-regulation (Kuhl & Beckmann, 1985), it was further explained that ability to achieve a goal is “depending on the availability and accessibility of volitional competencies such as attention control, motivation control, and initiative” (Kuhl & Fuhrmann, 1998, p.44). Thus, goal commitment and self-efficacy can estimate the readiness for self-regulation (Kuhl & Fuhrmann, 1998) rather than guarantee the availability and accessibility to such completeness. Consequently, the study extended the deliberative mind-set component of the model with the implemental component, which will evaluate the mediation effect of volitional competencies.

As far as implementation intention is concerned, the results indicated that implementation intention is a self-regulation determinant. These findings confirmed the implementation theory (Gollwitzer, 1993, 1999, 2006) and they are in line with other literature which suggests action planning as a self-regulation factor (Kolvereid & Isaksen, 2006; Frese, 2009; Gielnik et al., 2014). As far as optimism is concerned, the results have shown that optimism is a self-regulation determinant. These findings confirmed the model of behavioural self-regulation (Scheier et al., 1994) and the theory of categorisation (Palich & Bagby, 1995). In addition, they are in accordance with other literature arguing that entrepreneurs are optimistic (Cooper et al., 1988; Schwarzer, 1998; Armor & Taylor, 2003).

As far as coping with failure is concerned, the results indicated that coping with failure is a self-regulation determinant. These findings confirmed the coping theory (Lazarus & Folkman, 1984) and they are in accordance with other literature which suggest coping as self-regulation factor (Kuhl & Fuhrmann, 1998; Patzelt & Shepherd, 2011). As far as action orientation is concerned, the hypothesis stating that action orientation is a self-regulation factor has been rejected. This is not in line with the action control theory which states that action-oriented people take decisions and initiate actions (Kuhl & Fuhrmann, 1998) whereas state-oriented individual hesitate and postpone actions (Kuhl, 1994a).

The study suggested implementation intention as the first self-regulation determinant of the implemental mind-set. Creating a deliberative mind-set that facilitates the task of deciding among many human wishes and wants enables people to formulate goal intention rather than being distracted by many desires (Gollwitzer, 1999). The goal needs to be strong enough to prepare people to encounter difficulties of initiating action at the pre-action phase. However, concrete entrepreneurial goal intention is not a guarantee for initiating action (Kuhl & Beckmann, 1985; Kuhl & Fuhrmann, 1998; Gollwitzer, 1999). Hence, according to Marsh et al. (2002), the individual needs three processes to carry out an intention. These processes are detecting goal, retrieving intention, and managing intention alongside other ongoing activity. Although people have already formulated entrepreneurial goal intention through a deliberative mind-set, they still require two processes to carry out the intention; these are retrieving intention and managing intention alongside other ongoing activity.

As far as the process of retrieving intention is concerned, Gollwitzer (1993) suggested implementation intention to resolve this issue by setting out an action plan of when to act and what should be done in the case of opportunities. This mechanism can tackle the concern highlighted by the self-regulation process of facing the problem of competing desires (Kuhl & Beckmann, 1985) as well as distractions causing people to change preferences (Gollwitzer,

1999). The significant relationship between implementation intention and self-regulation confirmed that it is a useful self-regulation mechanism to carry out entrepreneurial goal intention.

The second suggested self-regulation determinant is optimism. As people move to the pre-decision phase, the level of difficulty to initiate action depends on their goal. In case of difficult goals, they tend to encounter adversities such as competing desires and social pressure (Kuhl & Beckmann, 1985). As entrepreneurship is a complex phenomenon (Noorderhaven et al., 2004) with uncertainty (Krueger et al., 2000), it requires self-regulation (Frese, 2009). With reference to Marsh et al. (2002), the third process required to carry out intention is to manage it alongside other ongoing activity. Implementation intention can retrieve entrepreneurial goal intention from memory but there is a need to manage such intention among other activity.

Optimism is about expecting positive outcomes (Urbig & Menson, 2012). In accordance with the model of self-regulation of actions (Scheier et al., 1994), as individuals expect to success in their intended venture creation, it is expected that they remain involved in carrying out their intention. However, if they are pessimistic about the results of starting a business, they tend to disengage from implementing such intention. Consequently, the more positive the expectations of intended entrepreneurial activity are, the more grit there is (Armor & Taylor, 2003). This confirms optimism as a determinant which increases self-regulation in the implemental mind-set phase.

The third suggested self-regulation determinant is coping with failure. As people progress to the implemental mind-set with entrepreneurial goal intention, they face difficulties of initiating action (Kuhl & Beckmann, 1985; Gollwitzer, 1993; Kuhl & Fuhrmann, 1998). Hence, they tend to appraise these difficulties as either threat or challenge (Lazarus &

Folkman, 1984). In the case that they evaluate entrepreneurial activity as challenge, this implies that they expect favourable outcomes of starting a business intention. Hence, their confidence increases and they believe that they have sufficient resources to cope with obstacles. Consequently, they are ready to access the self-regulation mode. However, if they evaluate starting a business as a threat to their wellbeing, they often expect unfavourable consequences. Thus, they experience self-doubt about their ability to cope with difficult times. Ultimately, they disengage from applying self-regulation strategies (Lazarus & Folkman, 1984).

As far as action orientation is concerned, the results did not support action orientation as a self-regulation determinant. This is not in line with the action control theory which states that action-oriented people take decisions and initiate actions (Kuhl & Fuhrmann, 1998) whereas state-oriented individuals hesitate and postpone actions (Kuhl, 1994a). For action-oriented people to exhibit self-regulation capacity (i.e. self-determination), they need two main conditions; stressful condition and favourable tasks (Kuhl & Fuhrmann, 1998). Hence, the justification for the non-significant relationship between action orientation and self-regulation might be that entrepreneurial activity is not favourable and/or not stressful for the study sample. Consequently, they have limited accessibility to self-regulation under certain conditions (Goschke & Kuhl, 1993)

As people navigate from a deliberative mind-set to an implemental mind-set, they encounter stressful situations when starting the intended entrepreneurial activity. In such stressful conditions, people tend to experience low positive affect; hence, they require self-regulation (i.e. self-motivation) to overcome the low positive affect. In the case of action-oriented people, they have the ability to apply self-motivation rather than relying on external motivation if the entrepreneurship is planned in favourable conditions. However, if they evaluate entrepreneurship as taking place in unfavourable conditions, but the situation is not

stressful, they tend to be unable to motivate themselves. At the same time, they cannot get motivated by external motivators. Hence, they do not have accessibility to self-regulation competencies. Therefore, even if they have volitional competence, their accessibility to self-regulation might be limited to favourable conditions and stressful situations. For example, in the case that people change their appraisal of entrepreneurship from favourable to unfavourable, they might lose their ability to regulate their action against obstacles and, hence, cannot continue the entrepreneurial activity.

In summary, these results address the second research question of identifying self-regulation determinants. These factors include implementation intention, optimism, and coping with failure.

7.4. The mediation effect of the implemental mind-set (RQ3)

The findings about the mediation effect of the implemental mind-set between goal intention and self-regulation supported the roles of implementation intention (H5 and H6) and optimism (H7 and H8). However, it rejected the suggested roles of coping with failure (H9) and action orientation (H11 and H12). These hypotheses were presented in section 6.3.3 (Figure 26).

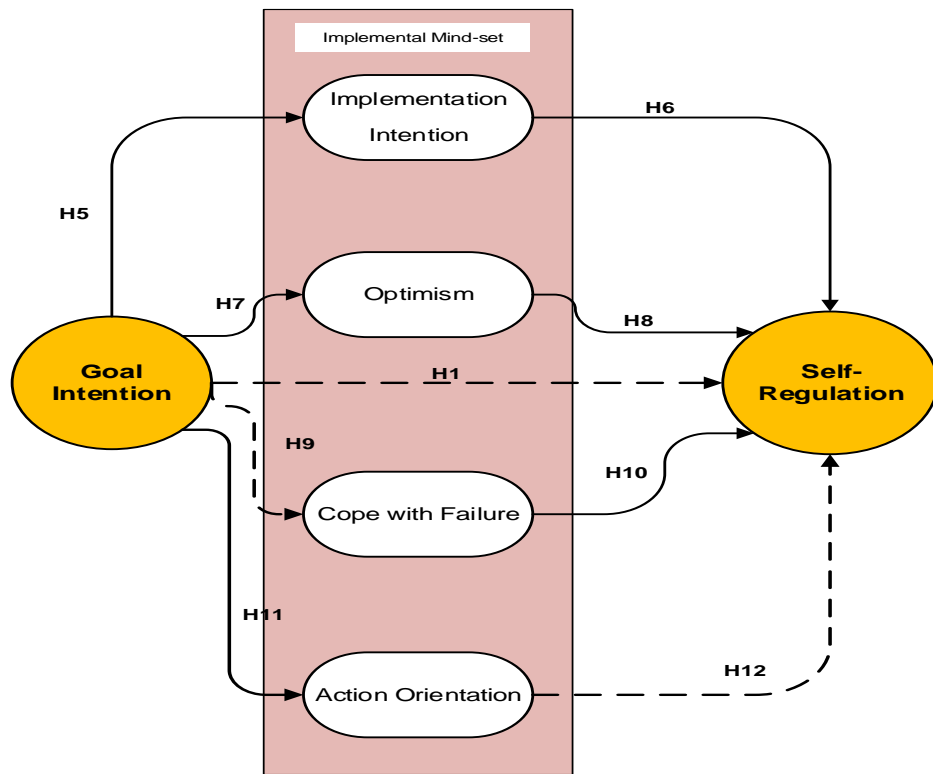


Figure 29 Mediation of the Implemental Mind-Set

The hypotheses expected that implementation intention (H5 and H6), optimism (H7 and H8), coping with failure (H9 and H10), and action orientation (H11 and H12) create an implemental mind-set to facilitate tasks of converting entrepreneurial goal intention (goal intention) into entrepreneurial potential (self-regulation). The findings of significant indirect relationships between goal intention and self-regulation through implementation intention (H5 and H6) are in accordance with the theory of implementation intention (Gollwitzer, 1993, 1999). The findings of significant indirect relationships between goal intention and self-regulation through optimism (H7 and H8) are in line with the model of behavioural self-regulation (Carver & Scheier, 1990; Scheier et al., 1994). This further confirms the role of the implemental mind-set in facilitating the task of entrepreneurial goal striving (Gollwitzer, 1993). However, the findings analysis rejected the suggested mediation effects of both coping

with failure (H9) and action orientation (H11 and H12). These results are not in line with the action control theory (Kuhl & Beckmann, 1985) or coping theory (Lazarus & Folkman, 1984).

These relationships indicate the importance of understanding the role of volitions in entrepreneurship which has been emphasised in recent entrepreneurship literature (Ilouga et al., 2014; Van Gelderen et al., 2015). The suggested underlying processes reflect the notion of the action phases model of Heckhausen (1986). One of the action phases is the pre-action phase which reflects the volitional stage of intention enactment. Further, this part of the model adopts the notion of the implemental mind-set which facilitates the task of initiating actions (Gollwitzer, 1990). It represents the state of execution for the goal intention (Ilouga et al., 2014).

The previous section has revealed that goal intention has no direct effect on self-regulation. This indicates that, on its own, entrepreneurial goal intention is insufficient for venture creation. Hence, there is a need for additional factors to induce intenders' self-regulation capacity; in other words, there is a need for mechanisms to translate entrepreneurial goal intention (goal intention) to entrepreneurial potential (self-regulation) (Hikkerova et al., 2016). This is supported by the theory of action control which articulates that intenders with commitment and self-efficacy may encounter enactment obstacles in the face of difficult goals (Kuhl & Beckmann, 1985). Hence, they require self-regulation to facilitate action initiation.

Gollwitzer (2006) argued that the intention-action gap is due to an inability of people to deal with self-regulatory issues in initiating and maintaining intention. Hence, it is argued that people need to move from a deliberative mind-set to an implemental mind-set to convert their intention into action (Fujita et al., 2007; Gollwitzer et al., 2011). Consequently, the previous section identifies these factors of the implemental mind-set, while this section focuses on

exploring the factors of the implemental mind-set that facilitate the progression to self-regulation.

7.4.1. Implementation Intention

The first implemental mind-set factor that facilitates moving from entrepreneurial goal intention to self-regulation is implementation intention. This finding indicates that entrepreneurial intenders need to formulate an implementation plan of when, how, and where to perform the chosen goal. The action plan enables them to shield the entrepreneurial goal intention from distractions of competing desires and negative thoughts (Gollwitzer, 2003; Gollwitzer et al., 2011).

The study shows the need to regulate intention as entrepreneurship is a complex phenomenon (Noorderhaven et al., 2004) which may involve time lags (Krueger et al., 2000). Hence, people tend to store entrepreneurial goal intention in their memory where the postponed intention needs to be retrieved at a certain point of time in the future (Kuhl & Beckmann, 1985; Marsh et al., 2002). However, people might forget, or get distracted by other ongoing activities (Gollwitzer, 1999); hence, there is a need for a self-regulatory mechanism to facilitate retrieving and carrying out postponed intentions. Gollwitzer (1999, 2003) suggested that formulating implementation intention of when and how to execute intended behaviour can help to remember when and what should be done to initiate action. In other words, it can convert goal intention into implementation intention which facilitates action enactment.

The model of self-regulation of action indicates that as people formulate goals and monitor them against the current situation, they may experience discrepancy. Hence, they need to act to change the situation and reduce the gap. Then, they repeat this process until the goal is

achieved Carver & Scheier, 1990). Thus, one of the actions that they may take to change the situation and bridge the gap is by formulating an implementation plan.

7.4.2. Optimism

The second implemental mind-set factor that facilitates moving from entrepreneurial goal intention to self-regulation is optimism. The results reveal that entrepreneurial intenders tend to expect positive outcomes from entrepreneurial goal intention; that is, they expect good things to happen rather than bad things (Scheier & Carver, 1987; Urbig & Menson, 2012). This is expected as people tend to be realistic at the pre-decision phase and more optimistic at the pre-action phase (Schwarzer, 1998). However, according to the self-regulation model of emotions (Figure 9), positive expectations depend on their level of confidence (Carver & Scheier, 1990; Scheier et al., 1994). In case of high self-efficacy, they expect favourable outcomes of intention and proceed to action initiation. Conversely, in the case of self-doubt, they expect unfavourable outcomes and disengage or change preference (Carver & Scheier, 1990). The assessment of self-efficacy might include several aspects of tasks including knowledge, skills and external influencers; hence, the more optimism at this stage, the more determination there is (Armor & Taylor, 2003).

The finding of full mediation of optimism between entrepreneurial goal intention and self-regulation indicates that the effect of optimism starts at the early stage of the entrepreneurial deliberative mind-set, when people perform primary appraisal (Lazarus & Folkman, 1984) of starting a business event. The primary appraisal of an event indicates that individuals may appraise the event of venture creation as either threat or challenge. As they judge it as challenge, it means they expect positive outcomes of entrepreneurship. This would increase their confidence about performing the tasks of entrepreneurs, and fosters the ability to control

situation. The positive expectations of outcomes can encourage people to remain engaged regardless of adversities (Scheier et al., 1994).

7.4.3. Action Orientation

The third suggested implemental mind-set factor that facilitates moving from entrepreneurial goal intention to entrepreneurial potential is action orientation. The study did not confirm the mediating effect of action orientation. However, it indicates significant negative relationship between entrepreneurial goal intention and action orientation (H11) whereas no relationship was found between action orientation and self-regulation (H12). This result is not in line with the action control theory which states that action-oriented people take decisions and initiate actions (Kuhl & Fuhrmann, 1998) whereas state-oriented individual hesitate and postpone actions (Kuhl, 1994a).

Concerning the relationship between entrepreneurial goal intention and action orientation, the study supports the notion of the “intention superiority effect” (Kuhl & Fuhrmann, 1998). According to the intention superiority effect, as people formulate intention, they activate intention representation in their memory, which in turn causes activation of many uncompleted intentions in memory. Consequently, according to the personality systems interactions (PSI) theory, the continuous activation of intention memory with a high load of many unfulfilled intentions lowers the positive affect and leads to an inability to carry out intentions.

The degree of such influence, however, depends on personality disposition; that is action orientation or state orientation. Thus, the influence of activation of many unfulfilled intentions is more salient among state-oriented individuals compared to action-oriented individuals. The study confirmed the PSI theory and revealed a negative relationship

between goal intention and action orientation. Thus, the higher the intention, the less influence on action orientation competency (Kuhl & Fuhrmann, 1998).

The other component of the indirect relationship between action orientation and self-regulation has shown that there is no effect of action orientation on self-regulation. Under stressful conditions, people may experience low positive affect. In case of action-oriented people, they can manage low positive affect of stressful conditions by successfully accessing self-regulation competencies such as self-motivation and concentration. However, they need to have a match between their goals and self-desires to be able to generate self-motivation under stressful conditions. Hence, action-oriented individuals can access self-regulation competencies and have high volitional efficiency in two main conditions; namely, stressful conditions and favourable goals (Kuhl & Fuhrmann, 1998). As stated, “conscious judgements about one’s volitional efficiency can be affected both by one’s actual competencies and by the accessibility of these competencies under stressful or frustrating conditions” (Kuhl & Fuhrmann, 1998, p.25). Hence, under normal situations, action-oriented people may not be able to apply self-regulation competencies.

Entrepreneurship is a complex phenomenon (Noorderhaven et al., 2004) which may involve negative emotions such as stress, loneliness, guilt, self-blame, anxiety, and depression (Shepherd, 2003). Under stressful conditions, action-oriented people can manage low positive affect of stress by self-regulation strategies such as self-motivation. However, the entrepreneurial goal should be favourable so that people can pursue their goals rather than disengaging from them.

The study sample is national employees of the private sector in Saudi Arabia. They are non-entrepreneurs who have never started a business. They might be under less stress compared to entrepreneurs as entrepreneurship is more stressful than paid jobs (Robinson, 2004).

Empirical studies confirmed that 70% of entrepreneurs believe that entrepreneurship is more stressful than jobs (Ahmad & Xavier, 2010); however, they might be under less stress compared to unemployed people. According to a meta-analysis study conducted by McKee-Ryan et al. (2005), unemployed people more likely to suffer from low life satisfaction compared to employed ones. Paul and Moser (2009) conducted a meta-analysis study among more than 40,000 participants and found that unemployed participants suffer from lower subjective wellbeing compared to others. Further, unemployed people may be subject to several negative emotions such as embarrassment and “stigma” of unemployment (Kulik, 2000). These negative emotions might minimise their social relationships and interaction, and increase their isolation (Kulik, 2000, Blau et al., 2013).

Consequently, the finding of a non-significant relationship between action orientation and self-regulation might be attributed to inability of action-oriented employees to access self-regulation competencies during less stressful conditions.

7.4.4. Coping with Failure

The fourth suggested implemental mind-set factor that facilitates moving from entrepreneurial goal intention to entrepreneurial potential is coping with failure. The study did not confirm the mediating effect of coping with failure. Although the relationship between coping with failure and self-regulation is significant (H10), the relationship between goal intention and coping with failure is non-significant (H9). This result is not in accordance with coping theory (Lazarus & Folkman, 1984).

The coping theory postulates that during stressful events, people tend to either appraise stressful situation as threat or challenge (Lazarus & Folkman, 1984). In case of threat appraisal, they expect negative outcomes and potential loss; hence, this evaluation is

accompanied by with negative emotions and self-doubt. Consequently, they set simple rather than challenging goals. However, when they appraise a stressful event as a challenge, they expect outcomes and potential gain, and hence experience positive emotions and confidence. Eventually, they set a challenging goal rather than a simple one. As they proceed to initiate action, they encounter difficulties of enactment. Hence, they perform secondary appraisal; that is coping ability. In case of low self-efficacy from the primary judgement, they believe that the threatening situation is uncontrollable and exceeds their coping resources, so their coping style is inhibited or blocked. However, in the case of high self-efficacy from primary appraisal, they believe that the challenging condition is controllable and they have sufficient coping resources. Hence, they apply coping strategies that lead them to the desired outcomes (Bandura, 1982; Lazarus & Folkman, 1984; Locke & Latham, 2006).

The result indicates that formulating just the entrepreneurial goal intention at the pre-decision phase does not imply that people will be able cope with difficulties at the pre-action phase. Hence, it confirmed the implementation intention theory where formulating goal intention with commitment is important but insufficient to deal with the self-regulatory requirements (Gollwitzer, 1993). However, this result is not in accordance with coping theory where self-efficacy induces the ability to cope with stressful events. Thus, there might be other factors that might influence the relationship between entrepreneurial goal intention and coping with failure; these include prior start-up experience and motivation.

As far as prior start-up experience is concerned, the nature of entrepreneurship can be stressful for several reasons. First, entrepreneurship tasks can be associated with uncertainty, ambiguity, unknown outcomes, high responsibility, and great deal of working loads (Covin & Slevin, 1991; Wiklund, 1999, Aldrich & Martinez, 2001, Uy et al., 2013). Second, others argued that entrepreneurship is stressful as entrepreneurs need to take decisions about

recognising opportunities, solving problems (Douglas & Shepherd, 2000; Patzelt & Shepherd, 2011), managing turbulent situations (Rahim, 1996; Jamal, 1997; Harris et al., 1999), and dealing with complex settings (Hoang & Gimeno, 2010). Consequently, entrepreneurs experience higher stress compared to non-entrepreneurs (Buttner, 1992; Harris et al., 1999).

One of the most stressful incidents is business failure (Shepherd, 2003) where coping with failure is necessary for entrepreneurs' survival (Patzelt & Shepherd, 2011). Hence, coping with failure plays a vital role in entrepreneurs' life (Uy et al., 2013). Prior start-up experience is defined as "an individual's experience relating to previous creation or founding of new business ventures" (Uy et al., 2013, p.586). The importance of previous start-up experience has been highlighted by entrepreneurship scholars (Cooper et al., 1995; Minniti & Bygrave, 1999; Shane, 2000). It is argued that previous start-up experience can influence coping with stressful situations in several ways. First, it develops the sense of control (Bandura, 1977; Hmieleski & Baron, 2008) and hence facilitates using coping methods effectively (Uy et al., 2013). Second, it enriches entrepreneurs with learning which helps them to cope with entrepreneurship difficulties (Shane & Stuart, 2002; Corbett, 2005). Third, it can enable entrepreneurs to build the necessary knowledge and skills (Colombo & Grilli, 2005) for decision making and action enactment (Reuber & Fischer, 1999). Fourth, it can influence start-up decisions (Davidsson & Honig, 2003; Dew et al., 2009) and creates new habits (Dokko et al., 2009). Finally, previous experiences could influence the entrepreneurs' mind-set (Uy et al., 2013).

The study sample is national employees in Saudi Arabia who have never started a business. Insufficient venture creation experience might influence the relationship between entrepreneurial goal intention and coping with failure due to a lack of control, coping methods, learning, knowledge, skills, decisions, and mind-set (Bandura, 1977; Hmieleski &

Baron, 2008). In fact, as mentioned in the methodology chapter, 45 participants were excluded from the study as they have previous start-up experience.

Another justification is the entrepreneurship motivation in Saudi Arabia context. According to Pinillos and Reyes (2011), different motivations in various cultures lead to different entrepreneurial behaviours. There are two main types of motivations; these are *pull* and *push* (Uhlaner & Thurik, 2007). According to GEM (2009), these motivations are called opportunity-driven and necessity-driven, respectively. The opportunity-driven (pull) motivation refers to “the expectation of being better off as an entrepreneur” whereas the necessity-driven (push) motivation refers to “the conflict between one’s current and one’s desired state” (Uhlaner & Thurik, 2007, p.165). This conflict might include both individual and country levels.

It is argued that relationship between economic development stage and entrepreneurial activity is mainly U-shaped (Hofstede et al., 2004). At the early poor stages of an economy, culture is characterised by high dissatisfaction levels. Thus, entrepreneurial activity is high but on a small scale. As the economy reaches the stage of prosperity, countries start transferring to urban areas and paying higher wages, and dissatisfaction diminishes. Because of this stage, the motivation for venture creation is low and hence the entrepreneurial activity is low (Hofstede et al., 2004; Wennekers et al., 2007; GEM, 2009).

A study about entrepreneurial perception and attitudes in Saudi Arabia revealed that Saudi entrepreneurial motivation is mainly opportunity-driven rather than necessity-driven (GEM, 2009, 2010). Thus, it depends on people’s choice rather than need. Further, people have high entrepreneurial goal intention and favourable perceptions about entrepreneurship. However, 49% of the sample believe that fear of failure is holding them back from starting a business.

Consequently, the opportunity-driven motivation may explain why entrepreneurial goal intention does not lead to coping with failure in the sample.

Another justification is the salient post-materialistic values in Saudi Arabia. Lazarus and Folkman (1984) argued that the feeling of an inability to control outcomes increases fear of failure and reduces the regulation towards persistence. This is supported by the self-regulation process which articulates that the ability to adopt self-regulatory strategies depends on the self-efficacy level (Kuhl & Beckmann, 1985). Thus, non-entrepreneurs with no previous experience in starting a business might negatively appraise their ability to control entrepreneurial activity. According to coping theory, this evaluation can lower their self-efficacy, and hence reduces their confidence about coping resources (Lazarus & Folkman, 1984). One of the crucial influencers on entrepreneurial activity at both individual and country levels is post-materialistic values (Uhlener & Thurik, 2007; Morales & Holtschlag, 2013). In other words, post-materialistic values might affect entrepreneurial self-efficacy which in turn reduces coping with failure regardless of entrepreneurial goal intention. This situation is discussed further in the next section about the influence of post-materialistic values.

Looking at these cognitive processes that mediate the relationship between entrepreneurial goal intention and self-regulation enabled the researcher to highlight possible reasons for the entrepreneurial goal intention-action gap. The results concluded that an implemental mind-set can increase intenders' self-regulation, thus facilitating the conversion from entrepreneurial goal intention to entrepreneurial potential. As people decide to perform entrepreneurial activity, they move to the pre-action phase. They tend to face several challenges such as social pressure, and competing tendencies. These challenges generate negative emotions which require coping resources to deal with them. As only formulating intention is not enough to deal with stressful situations, they need to furnish entrepreneurial goal intention

with implementation intention and optimism. However, there are two main prerequisites for the deliberative mind-set; namely, commitment and entrepreneurial self-efficacy.

Consequently, to progress from entrepreneurial goal intention (goal intention) to entrepreneurial potential (self-regulation), three main self-regulation factors are required. The first is concrete entrepreneurial goal intention based on goal commitment and entrepreneurial self-efficacy in the deliberative mind-set; the second is implementation intention in the implemental mind-set to furnish the formulated entrepreneurial goal intention; and the third is optimism in the implemental mind-set to furnish goal commitment and entrepreneurial self-efficacy.

7.5 The influence of post-materialistic values on goal intention (RQ4)

The study examined the influence of post-materialistic values on the goal intention. The findings revealed that post-materialistic values have no effect on goal intention (H13), desirability (H14), or feasibility (H15). However, it negatively influences entrepreneurial self-efficacy (H16). This was given in section 4.3.1. (Figure 17).

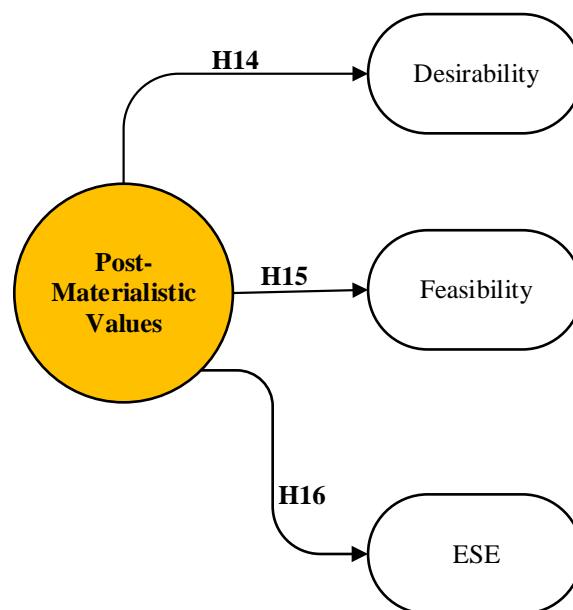


Figure 30 The Influence of Post-Materialistic Values

The result is in accordance with the study by Uhlaner and Thurik (2006) which has shown that post-materialistic values are negatively related to total entrepreneurial activity at country level. Further, it is in accordance with the study by Morales and Holtschlag (2013) which revealed that post-materialistic values are negatively related to entrepreneurial activity at the individual level. Although both studies explored the direct relationship between post-materialistic values and total entrepreneurial activity, this study explored the indirect relationship between post-materialistic values and entrepreneurial goal intention. However, they are in line as all indicated the negative effect of post-materialistic values on entrepreneurship.

Traditionally, the difference in entrepreneurial activity is attributed to economic condition. However, the persistence of such differences raises the possibility of another factor –culture (Pinillos & Reyes, 2011). Culture can affect the way that people decide to choose entrepreneurship from among other alternatives, and indicates how countries might differ in motivations, aspirations, and activities (Foreman-Peck & Zhou, 2013). To explore culture effects, it is crucial to understand values which underlie cultures (Hundley et al., 2012). As defined by Mueller et al. (2001, p.58), values are “powerful forces for controlling and directing human behaviour”. Thus, it is expected that values can play a salient role in influencing entrepreneurial behaviours (Morales & Holtschlag, 2013). Consequently, to investigate the entrepreneurial goal intention-action gap, this study explores the way that cultural values promote or inhibit entrepreneurial activity in the Saudi Arabian context.

Following the argument that values can be materialistic or post-materialistic (Inglehart, 2008), the present research focuses on this classification of values. Further, the study follows the assertions that entrepreneurs are materialistic and that a society with post-materialistic individuals will have fewer entrepreneurs (Uhlaner & Thurik, 2007). In other words, the

priority in materialistic values is physical and economical security whereas the priority in post-materialistic values is higher-order needs (Uhlaner et al., 2002). Although previous studies show that post-materialistic values influence entrepreneurial activity, this study investigates the cognitive process underlying such influence. Thus, it explores the relationship between post-materialistic values and the pre-action phase.

In this sense, the findings explain the reason behind the negative influence of post-materialistic values on entrepreneurial values. They assert that post-materialistic values have no effect on either personal attractiveness of entrepreneurial activity (desirability) or on individuals' feelings about their capability to start a business (feasibility). However, it found that post-materialistic values lower the degree to which individuals believe they are capable of performing the tasks required to start a business (entrepreneurial self-efficacy). This negative effect is crucial from several perspectives. First, according to the self-regulatory process, low self-efficacy might inhibit intenders with commitment from applying self-regulation strategies (Kuhl, 1985). This can cause insufficient self-regulation capabilities and hence generate the intention-action gap (Gollwitzer, 1993, 1999).

Second, according to goal theory, low self-efficacy induces people to set simple goals rather than challenging ones (Locke & Latham, 2006). Third, according to coping theory, self-doubt lowers the level of belief that people can control outcomes. Hence, they accept that the threatening situation exceeds their coping resources. Consequently, they become unable to apply coping strategies, and they experience negative emotions such as fear (Lazarus & Folkman, 1984). Finally, according to the model of self-regulation of emotions (Carver & Scheier, 1990) high self-efficacy induces favourable expectations and, hence, proceeding to action. However, self-doubt induces unfavourable expectations and consequently, disengagement (Carver & Scheier, 1990).

In fact, the role of entrepreneurial self-efficacy in converting entrepreneurial goal intention into action is emphasised by Ajzen and Madden (1986) who argued that people tend to act on behaviour where they believe that they have certain levels of controllability and ability. Further, Bandura and Locke (2003) articulated that there is compelling evidence that goal setting along with self-efficacy can enhance action enactment. Hence, the study revealed that the effect of post-materialistic values on entrepreneurial self-efficacy plays a vital role in bridging the entrepreneurial goal intention-action gap.

7.6 The mediation effect of the Deliberative Mind-set (RQ5)

The present research tests the mediating influence of the deliberative mind-set on the relationship between cultural values and entrepreneurial goal intention. The test revealed that desirability and feasibility have no mediation effect on the relationship between post-materialistic values and entrepreneurial goal intention. Thus, hypothesis H2 and H3 are accepted whereas H14 and H15 are rejected. However, the test result has shown that entrepreneurial self-efficacy has a mediation effect on the relationship between post-materialistic values and entrepreneurial goal intention. Thus, hypotheses H4 and H16 are accepted. The relationships are given in section 6.3.3 (Figure 27).

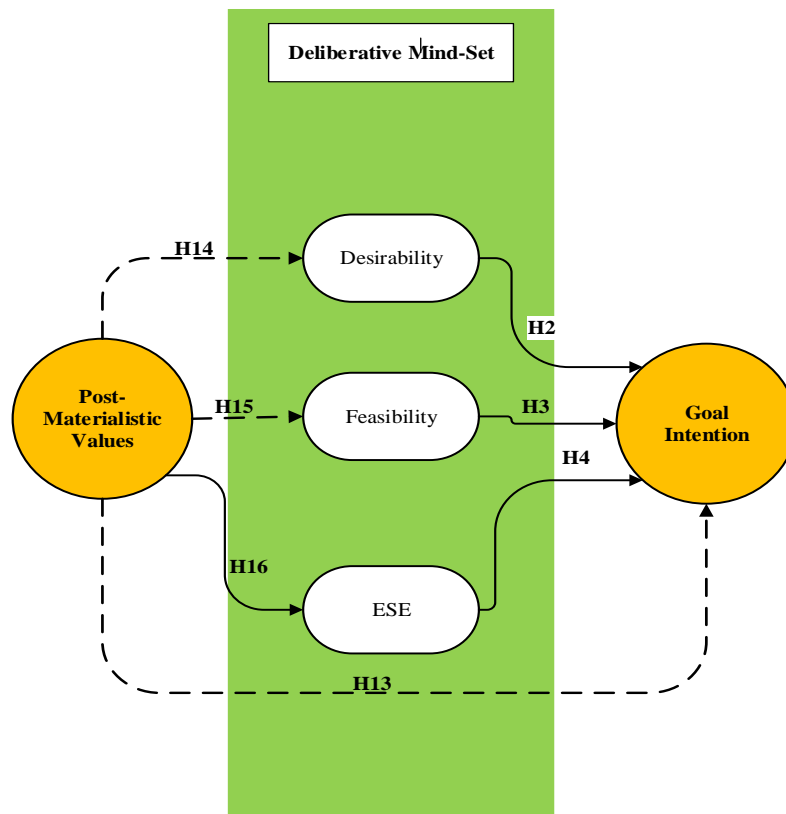


Figure 31 Mediation of Deliberative Mind-Set

This result is in line with the cognitive theory which postulates that the environment influences behaviours indirectly through a sense of efficacy and self-regulatory factors (Bandura, 2001). As stated by Bandura:

‘In social cognitive theory, sociostructural factors operate through psychological mechanisms of the self-system to produce behavioural effects. Thus, for example, economic conditions, socioeconomic status, and educational and family structures affect behaviour largely through their impact on people’s aspirations, sense of efficacy, personal standards, affective states, and other self-regulatory influences, rather than directly’ (2001, p. 15).

The study expects that post-materialistic values can affect entrepreneurial behaviour indirectly through the deliberative mind-set. The expectation is based on several theories including social cognitive theory (Bandura, 2001), the theory of institution (Scott, 1995), and values change theory (Inglehart, 1977, 1990, 2008). These theories highlight ‘environment as one of the determinants of behaviour. As far as the study model is concerned, there are two

entrepreneurial mindsets - *deliberative* and *implemental*. The former is motivational whereas the latter is volitional (Henderson et al., 2007, Gollwitzer, 1990). Post-materialistic values are expected to influence entrepreneurship indirectly through a sense of efficacy and self-regulation (Bandura, 2001); hence, the study proposed direct and indirect relationships through the deliberative mind-set.

The results indicated full mediation of entrepreneurial self-efficacy. The direct relationship between post-materialistic values and entrepreneurial goal intention is significant without the suggested mediators of desirability, feasibility, and entrepreneurial self-efficacy. As these factors were added to the model, the direct relationship between post-materialistic values and entrepreneurial goal intention has changed to non-significant. This indicated full mediation of entrepreneurial self-efficacy; in fact, it emphasised the important role that entrepreneurial self-efficacy plays in bridging the intention-action gap.

Further, the result did not show the mediation effect of goal commitment (desirability and feasibility) because post-materialistic values have no effect either on desirability or on feasibility. This might be attributed to the importance of goal commitment in entrepreneurial activity. Thus, it might be hard for an unsupportive culture to affect strong entrepreneurial commitment about venture creation. This is confirmed by a recent study stating that “the strength of intention drives action: those with weaker intentions are less likely to take action” (Kautonen et al., 2013, p. 670). The commitment to entrepreneurial activity emerges from internal desires rather than external bonuses. Hence, potential entrepreneurs are aware about expected difficulties and they are ready to use characteristics such as self-motivation, concentration, and other volitional competencies (Ilouga et al., 2014).

It is also worth noting that societies with unsupportive cultural values need to understand how to encounter the negative effects of their culture. This study has identified entrepreneurial

self-efficacy as one of the factors that can be affected by post-materialistic values. As far as the intention-action gap is concerned, the negative influence of post-materialistic values can reduce entrepreneurial self-efficacy. Hence, people with self-doubt tend to set simple goals rather than challenging goals (Locke & Latham, 2006). Low entrepreneurial self-efficacy can induce people to appraise entrepreneurial activity as a threat rather than as a challenge; hence, they expect negative outcomes and experience low coping ability. Thus, they believe that they do not have sufficient resources to cope with difficulties (Lazarus & Folkman, 1984). Consequently, they are unable to access self-regulation competencies, and therefore disengage from initiating entrepreneurial activity (Kuhl & Beckmann, 1985).

This result answered the fifth research question about the ability of the deliberative mind-set to mediate the relationship between post-materialistic values and goal intention. The study emphasised the role of entrepreneurial self-efficacy to strengthen the relationship between unsupportive cultural values such as post-materialistic values and entrepreneurial goal intention.

7.7. Summary

This chapter discusses the study findings considering the five research questions. First, the present research identifies the determinants of goal intention at the pre-decision phase (deliberative mind-set). These determinants are desirability, feasibility, and entrepreneurial self-efficacy. Second, the study identifies the determinants of self-regulation at the pre-action phase (implemental mind-set). These factors are implementation intention, optimism, and coping with failure. Third, the research highlights the role of the implemental mind-set in converting entrepreneurial goal intention (goal intention) into entrepreneurial potential (self-regulation). It reveals that both implementation intention and optimism are mediators between goal intention and self-regulation. Fourth, the study addresses the effect of

unsupportive culture (post-materialistic values) on goal intention. The results show that only post-materialistic values influence the goal intention through entrepreneurial self-efficacy. Finally, the present research responds to the ability of the deliberative mind-set to mediate the relationship between cultural values and goal intention. The findings indicate the important role that entrepreneurial self-efficacy plays in improving the negative effect of post-materialistic values on goal intention.

Having discussed the research findings, the next chapter concludes this research. It revisits the research aim, objectives, and questions. Finally, it highlights the research implications and limitations, and suggests further research areas.

Chapter Eight: Conclusion

This chapter concludes the research. First it provides a brief of the main thesis findings. Next it links these findings with the study objectives identified in chapter one. Following this, the research contribution and implications are presented. Finally, it acknowledges the thesis limitations and sets out a future research agenda.

8.1 Bridging the Entrepreneurial Intention-Action Gap

Although some countries have high entrepreneurial intention, their corresponding entrepreneurial activity is low. This inconsistency between entrepreneurial intention and action can discourage the development aspirations at both country level and individual level. In the case of countries, it may diminish the advantages of venture creation on societies and nations. Some advantages include generating job opportunities, income growth, and services improvement (Kuratko, 2005; Sowmya et al., 2010; Koe et al., 2014). Furthermore, it may reduce the efficiency of entrepreneurship promotion programmes. In the case of individuals, failure to translate entrepreneurial intention into action can lead to inability to convert people's desires into reality.

Despite the importance of the entrepreneurial intention-action gap, the scarcity of studies about the concern is surprising. With a significant number of studies in the entrepreneurship field focusing on nascent entrepreneurship and entrepreneurial intention, knowledge about the intention-action link is still poor. Although existing intention models are robust in predicting entrepreneurial intention, they lack the ability to predict entrepreneurial action. The main limitation of the existing intention models is that they overlook the notion of action phases where acting involves several phases and attempts. Even the limited number of studies which address entrepreneurial intention-action relationship have reported considerable percentages of inaction.

In this sense, entrepreneurship literature calls for a better understanding of the processes underpinning the link between entrepreneurial intention and action. This can enable researchers to explore the points of discrepancy between entrepreneurial intention and action; however, to investigate the link between entrepreneurial intention and action, action predictor is essential. As entrepreneurial intention lacks the ability to adequately predict action, there is a need for a more proximal prediction of behaviour compared to just intention. The theory of action control suggests that self-regulation is an important and more proximal predictor of action. Self-regulation can fulfil the volitional component which enables people to strive and carry out their entrepreneurial intention. Hence, it enables people to step further away from entrepreneurial intention and closer to entrepreneurial potential; in other words, they can progress from being *entrepreneurial intenders* to *potential entrepreneurs*.

There is, however, inadequate explanation about the volitional role in entrepreneurship; that is, how entrepreneurial intenders navigate from only entrepreneurial intention to applying self-regulation. The present research responds to this gap in knowledge by exploring the self-regulation determinants that help intenders to become potential entrepreneurs. Further, this research distinguishes between the entrepreneurial deliberative mind-set and implemental mind-set which can provides further understanding of the volitional processes underlying the intention-action gap.

In this sense, the research follows the argument stating that bridging the intention-action gap requires a move from a deliberative mind-set to an implemental mind-set (Gollwitzer, 1993). The deliberative mind-set facilitates the task of entrepreneurial goal setting whereas the implemental mind-set facilitates the task of entrepreneurial goal striving. Further, the present research follows the argument that although the cognitive factor is important in initiating behaviours, the cultural factor is inevitable. Hence, it explores the influence of cultural values in the context of Saudi Arabia.

To fulfil the knowledge gap, this study has set four main objectives. The first objective is to identify goal intention determinants at the pre-decision phase. The results revealed that desirability, feasibility, and entrepreneurial self-efficacy are three determinants of goal intention. This indicates that at the early stage of formulating entrepreneurial goal intention, it is essential to regulate distractions of many wishes and needs. This can be achieved by setting firm and challenging goals. Thus, establishing commitment through desirability and feasibility of entrepreneurial desires is an important determinant of goal intention. However, confidence about the ability to create a venture is crucial to facilitate positive outcome expectations and coping ability. Consequently, the study identifies these three determinants as the necessary factors for establishing concrete entrepreneurial goal intention.

The second objective is to identify self-regulation determinants at the pre-action phase. The results revealed that entrepreneurial goal intention has no effect on self-regulation which matches the aim of the study to find additional factors to just intention. However, the findings showed three factors that influence self-regulation; implementation intention, optimism, and coping with failure. These results highlight the important aspects for potential entrepreneurs after formulating firm entrepreneurial goal intention.

The third objective is understanding the mechanisms of progressing from entrepreneurial goal intention to self-regulation. The results of the mediation effect test revealed that only implementation intention and optimism act as mediators; however, coping with failure and action orientation do not mediate the relationship between goal intention and self-regulation. Looking at the entire process from formulating entrepreneurial goal intention to self-regulation, this result indicates that the entrepreneurial goal intention-action gap can be explained by several reasons. First, individuals may formulate weak entrepreneurial goal intention at the pre-decision phase. As people decide about entrepreneurial activity with low

desirability and feasibility, they approach entrepreneurial activity with low commitment. Consequently, they may disengage easily as they proceed to initiate action.

Another reason for weak entrepreneurial goal intention is low entrepreneurial self-efficacy. Individuals may formulate weak entrepreneurial goal intention at the pre-decision phase by feeling under-confident about their ability to perform entrepreneurial tasks. They appraise entrepreneurship as a threat for their wellbeing rather than as a challenge that could lead to positive outcomes. Hence, they set trivial entrepreneurial goals instead of challenging goals. Consequently, they decide to start a business but with high self-doubt. As they progress to start the venture, they tend to face action initiation difficulties. Due to low entrepreneurial self-efficacy, they may fail to regulate their actions and thoughts and hence disengage from action enactment.

Second, although people may formulate strong entrepreneurial goal intention with commitment and entrepreneurial self-efficacy at the pre-decision phase, they do not furnish entrepreneurial goal intention with implementation intention. That is, they do not formulate an action plan about when to initiate action and what to do in the required conditions. Consequently, as entrepreneurial goal intention is about action to be taken in the future, they may either fail to remember what they intended, or may not know what to do.

Third, people may formulate firm entrepreneurial goal intention with commitment and entrepreneurial self-efficacy. Further, they may furnish that with an action plan to reduce the discrepancy between their intention and the current condition. However, as they start to encounter problems of action initiation, they expect negative outcomes rather than positive outcomes. Thus, they become pessimistic about the future instead of looking forward with optimism. This may induce negative feelings and discourage confidence to carry out the

entrepreneurial goal intention. Ultimately, they disengage and give up their goals rather than pursue their desires.

Fourth, as far as the coping with failure is concerned, the result revealed that coping with failure does not mediate the relationship between entrepreneurial goal intention and self-regulation. Thus, although formulating concrete entrepreneurial goal intention is important, it does not induce coping with failure. This is a crucial point as it may explain the reason behind why some people have strong entrepreneurial goal intention with commitment and entrepreneurial self-efficacy but fail to initiate action. The high entrepreneurial self-efficacy enables them to set challenging goals, expect positive outcomes (optimism), and develop implementation intention. The researcher attributes that to the role of the study context. The study is conducted in Saudi Arabia where public sector employees are not allowed to start a business. Further, only Saudi citizens can have their own business. As the study scope is the intention-action gap, only non-entrepreneurs who have never started a business are included in the sample.

One of the suggested justifications for the non-significant relationship between entrepreneurial goal intention and coping with failure might be the effect of no prior experience. The prior business experience can induce the ability of control and, hence, learning and coping. Another justification is that entrepreneurial activities in Saudi Arabia are mainly opportunity-driven rather than necessity-driven. Thus, creating a venture is highly optional where fear of failure is salient. Further, the impact of post-materialistic values might explain the discrepancy between entrepreneurial goal intention and coping with failure. Thus, change in values' priorities from economic security to higher needs might trigger feelings of inability to exert control over the outcomes. Consequently, it increases fear of failure and reduces the regulation towards persistence.

Fifth, as far as action orientation is concerned, the result revealed that action orientation competence decreases with high entrepreneurial goal intention and that it has no influence on self-regulation. The reasons for that might be that activation of many uncompleted intentions has less effect on action-oriented people compared- to state-oriented individuals; hence, the more intentions the less effect on action orientation. However, under stressful conditions, action-oriented persons are more capable of managing the negative effect of many unfulfilled intentions through self-motivation. Consequently, the non-significant relationship between action orientation and self-regulation might be attributed to the sample of non-entrepreneurs. Thus, private sector national employees might experience less stress in starting a business compared to the levels of stress experienced by unemployed individuals.

The fourth objective was to explore the influence of cultural values on entrepreneurial goal intention. To address this objective, the study focuses on the link between post-materialistic values and entrepreneurial goal intention. It explored the effect of the deliberative mind-set on the relationship between post-materialistic values and entrepreneurial goal intention, and found that post-materialistic values indirectly reduce entrepreneurial goal intention through entrepreneurial self-efficacy. Thus, to enhance the negative influence of post-materialistic values on entrepreneurship, it is crucial to increase the level of entrepreneurial self-efficacy.

8.2 Implications of the Research

The research makes several significant contributions to entrepreneurship literature. First, the research explores the concerns of the entrepreneurial goal intention-action gap. Although this concern is important, the entrepreneurship field lacks studies which address the link between entrepreneurial goal intention and action. Second, despite the scarce number of studies about entrepreneurship and culture, studies about post-materialistic values are scarcer still. This study addresses the effects of unsupportive cultures such as post-materialistic cultures where

entrepreneurship encounters low preference. Third, the study responds to the need to predict entrepreneurial action using factors other than entrepreneurial goal intention. Thus, it extends the dominant intention models with self-regulation.

Fourth, the present research sheds light on the cognitive processes that underpin the formulating of entrepreneurial goal intention and regulating thoughts and actions. Fifth, this research responds to the need to address volitional aspects in the entrepreneurship field. Finally, this study integrated the notion of the deliberative mind-set and the implemental mind-set with intention models to address the intention-action gap concern. Consequently, this study has several theoretical implications as well as practical implications.

8.2.1 Theoretical implications

This research has three main implications and impacts on entrepreneurship literature. First, it fosters the insight of entrepreneurship as a process rather than a single act. Looking at entrepreneurship as a process entails researchers to investigate entrepreneurial behaviour deeply and comprehensively. For example, the predominant approach of predicting entrepreneurial action through a single best predictor of entrepreneurial intention can be reassessed. The process approach can enrich understanding of entrepreneurship as a complex phenomenon that involves prerequisites, stages, interactions, influencers, and decisions. It reflects the argument that entrepreneurship is a lifelong learning process where researchers can investigate different stages starting from the early stage of formulating entrepreneurial intention. Further stages might include decision processes, goal setting, goal striving, and sustainability.

In fact, this insight might give a more realistic vision of entrepreneurial behaviour where people often navigate through different turbulent situations starting from venture creation to established business. Further, looking at the entrepreneurship phenomenon as goal-directed

behaviour can lead to an exploration of different states including motivations and volitions. Thus, it answers longstanding calls in the entrepreneurship field to consider volitions aspects (Krueger et al., 2000; Brannback et al., 2007; Kaze'n et al., 2008; Kautonen et al., 2013; Gielnik et al., 2014; Ilouga et al., 2014; Van Gelderen et al., 2015).

Second, the present research promotes the notion that the entrepreneurship phenomenon is about the way of thinking, namely, the mind-set. In fact, looking at action as the signal of entrepreneurial behaviour whereas entrepreneurial intention is considered the most immediate predictor of entrepreneurial activity seems contradictory. Hence, this study stimulates intention research in the entrepreneurship context to understand all the processes that underlie the entrepreneurial goal intention-action relationship. This can shift the focus from mainly identifying motivational factors that formulate entrepreneurial goal intention to understanding cognitive abilities and dealing with adversities. Further, distinction between the deliberative mind-set and the implemental mind-set in the entrepreneurship domain might stimulate the need to differentiate between non-entrepreneurs' characteristics such as intenders and potential entrepreneurs.

Looking at entrepreneurial behaviour from the mind-set perspective can broaden the perceptions about the entrepreneurship phenomenon. This approach can encourage researchers to investigate various emotions and feelings that might influence entrepreneurial activity, hence capturing the benefits of entrepreneurship promoters and suppressing inhibitors. In fact, considering the entrepreneurial mind-set answers the calls for achieving a greater understanding of the deep assumptions that underlie entrepreneurial behaviour which can result in significant progress in the field (Brannback et al., 2007; Hayton & Cholakova, 2012; Kautonen et al., 2013; Fayolle & Linan, 2014).

Third, the present research adopts the salient effect of cultures on entrepreneurial behaviour. This may impact entrepreneurship literature to consider the important role of the interplay between cultural values, cognitive factors, and entrepreneurial goal intention by exploring the interactions between these factors instead of dealing with each of them independently.

Unsupportive cultural values can negatively influence entrepreneurial activity. However, focusing on the relationships among culture, cognition, intention, and entrepreneurial behaviour may enable researchers to explore ways to enhance the low entrepreneurial activity in general. This would make the relationship between cultural values and entrepreneurial activity complementary rather than contradictory.

As values drive actions (Mueller & Thomas, 2001), looking at the direct effects of cultural values on entrepreneurial behaviour can inform entrepreneurial intention literature about deep-rooted assumptions that may affect entrepreneurial activity. However, investigating the indirect effect of cultural values through cognition can enrich entrepreneurial goal intention literature in two ways. The first is identifying cognitive factors that may diminish the ability to initiate entrepreneurial action context, and the second is highlighting cognitive mechanisms that may facilitate the action initiation stage. In fact, this insight answers the calls from literature to understand human variations through cognitive processes (Lazarus & Folkman, 1984) and realise behaviour inhibitors through the interplay between culture and cognition (Bandura, 2001)

8.2.2 Policy Recommendations

The present research has policy implications from two perspectives; those of the policy makers and those of the potential entrepreneurs. The need for more entrepreneurs and entrepreneurial activity has stimulated governments and policy makers to establish many policies and initiatives. They refer to these policies and interventions as entrepreneurial

framework conditions such as financial support, government policies, government programs, education, and training (GEM, 2009, 2010). However, many people who have entrepreneurial intention fail to translate their intention into action. Hence, for these entrepreneurial framework conditions to be effective, targeted people need to translate their entrepreneurial goal intention into action.

The present research found two main factors to be responsible for the difficulty of taking entrepreneurial action – namely, culture and way of thinking. As far as culture is concerned, the study indicated that cultural values can inhibit people who have entrepreneurial intention from starting their business. These are basic beliefs embedded in people often during the early years of life. Saudi Arabia is an ideal context where values changed during the ‘years of plenty’, when people’s priorities has changed from basic economic security to lifestyle priority. The former prefers entrepreneurial activity whereas the latter does not consider entrepreneurship as an attractive option. Consequently, the Saudi culture might be unsupportive and discourage potential entrepreneurs. This can reduce the impact of government policies, initiatives, programmes, and funds that aim to promote entrepreneurship in Saudi Arabia.

Hence, to enhance the efficiency of government plans, strategies, initiatives, and promotions about entrepreneurship in Saudi Arabia, policy makers may start focusing on individuals in the pre-adult years; that is, promoting and nurturing entrepreneurship in the early stages of life. The main reason is that, at pre-adulthood, people establish their preferences, priorities, and values that last for a long time and are slow to change. Presenting entrepreneurship at this stage of life as one of the future life choices may help to mitigate the problem of an unsupportive culture in Saudi Arabia. Further, as this study found that unsupportive culture in Saudi Arabia mainly affects individuals’ confidence to become entrepreneurs, the suggested

initiative of nurturing entrepreneurship at the early stages of life can target building entrepreneurial confidence. Hence, the role of entrepreneurship education comes into the picture.

The need for entrepreneurship education is crucial to respond effectively to global changes. One major change is the transfer from the industrial era to the era of information, technology, and knowledge. Hence, the nature of work has changed where entrepreneurial skills outweigh physical ability. New generations are required to be proactive and face the challenge of limited employability. They need to build their entrepreneurial skills and abilities to cope with such challenges.

Entrepreneurship education can establish several important skills such as leadership, coping with adversities, determination, innovation, and creativity. However, this study highlights that building entrepreneurial confidence is crucial to address the problem of an unsupportive culture. Hence, it recommends that entrepreneurship education at the pre-adulthood stage takes place to focus on building entrepreneurial confidence. Research shows that entrepreneurial confidence can be enhanced through three main paths – these are mastery, role modelling, and verbal persuasion (Bandura, 1977, 1986, 1997). Mastery refers to building confidence directly by accepting challenges and mastering them. Role modelling refers to building confidence indirectly by seeing somebody else mastering challenges. Verbal persuasion entails encouraging others to perform behaviour, for example, by parents or coach.

Consequently, the present study recommends developing entrepreneurial confidence at the pre-adulthood life stage through role modelling. Entrepreneur guest speakers can share their experience of overcoming challenges and difficult times. They can explain how they master

challenges and reach their desires. This can indirectly enhance entrepreneurial confidence of students.

Further, verbal persuasion can help students to perceive entrepreneurship as an attractive career choice. Students who come from an entrepreneurial background – for example, their parents are entrepreneurs – may have a higher likelihood of receiving verbal persuasion to perform entrepreneurial activity. Hence, entrepreneurship training can help students who come from a non-entrepreneurial background to increase their entrepreneurial confidence; in this way, entrepreneurial knowledge enables students to view the world around them from different angles and spot opportunities faster and easier than others.

Once entrepreneurial confidence is established in children and adolescents through entrepreneurship education, it can positively influence their future goals and life purpose. Thus, confident young people are able to set challenging goals such as becoming entrepreneurs rather than being constrained by simple goals.

Entrepreneurship, however, involves various disciplines such as management, finance, marketing, planning, law, strategy, and psychology. It implies the need for an entrepreneurial skill-set including creativity, innovation, opportunities recognition, and financial knowledge. Hence, including entrepreneurship in schools' curricula might encounter several barriers and obstacles. First, it requires non-traditional education methods to match entrepreneurial thinking and behaviour. Second, it requires non-traditional assessment compared to traditional tests. Third, it demands both financial and human resources to foster entrepreneurial skills and capabilities.

Several approaches are recommended to encounter barriers of entrepreneurship training for children and adolescents. As far as education methods are concerned, it is recommended that the traditional method of lecturing is supported with practical approaches such as guest presenters, group work, and business plan competitions. Another method could be computer simulation of starting a business. Further, practical approaches such as projects involving selling a product or service can introduce students to the whole of the entrepreneurship process including decision making, opportunity recognition, marketing, sales, finance, management, and leadership.

As far as resource constraints are concerned, technology tools such as videos and business websites can present entrepreneurial business cases for students. This can demonstrate who have entrepreneurial tendencies, how they manage their life, and how to start an e-business. Further, training of educators and setting assessment criteria are crucial requirements to accomplish the fruitful outcomes of entrepreneurship education for children and adolescents.

The importance of this study lies in exploring means to help people who have ongoing entrepreneurial intention but need to convert it into action. The present research identifies several practices that enhance the capability of intenders to become entrepreneurs. The first practice is to formulate strong goal to perform entrepreneurial activity. Establishing entrepreneurship as a firm goal can be achieved by three main factors. The first factor is to perceive entrepreneurship as a favourable and attractive choice. The second factor is to believe that starting a business is something possible and achievable. These two factors form a commitment and responsibility that individuals can maintain toward achievement. The third factor is to have confidence in performing the tasks required to start a business. This stage is important to exert control over distractions of other desires and wishes.

The study found, however, that the unsupportive culture in Saudi Arabia might negatively influence one of these three factors for formulating strong entrepreneurial goal– namely, confidence. In other words, individuals might prefer to start a business and consider that option as possible and realistic; however, the cultural values affect their confidence to act. Hence, intervention programs that aim to promote entrepreneurship in Saudi Arabia can focus on building the entrepreneurial confidence of intenders. This can reduce the negative effect of cultural values and strengthen intenders’ goals of starting a business.

Having enhanced the entrepreneurial confidence of intenders, the next important factor is commitment. The commitment to entrepreneurship can be enhanced by increasing the attractiveness of entrepreneurship choice and the belief about ability to become an entrepreneur. Hence, interventions programs that aim to promote entrepreneurship in Saudi Arabia can focus on developing commitment after securing entrepreneurial confidence. Consequently, establishing entrepreneurial confidence and commitment in entrepreneurial intenders can enable them to formulate concrete goal intention.

The present research found that establishing strong entrepreneurial goal intention is insufficient to start a business. Intenders often miss the point at which they should implement their goal. Further, they may fail to know what they should do to achieve their goal. Hence, it is crucial to emphasis furnishing entrepreneurial goal intention with an implementation plan. This stage is important to exert control over difficulties that intenders encounter about other desires. Thus, the second practice that enhances the capability of intenders to become entrepreneurs is formulating an action plan. Entrepreneurship interventions and initiatives in Saudi Arabia can focus on fostering the ability of developing an action plan including how, when, and where intenders desire to start a business. This capacity can enable intenders to

face the adversities they often encounter after progressing with their entrepreneurial goal intention.

Entrepreneurial intenders who formulate strong entrepreneurial goal intention along with implementation plans often encounter difficulties of starting a business. Although they are motivated by their goals, they need to persist against obstacles. The study found another important factor which can help them to survive during stressful conditions – namely, optimism. Entrepreneurial intenders who established a firm goal along with an implementation plan to start a business can enhance their ability to encounter difficulties through optimism. Hence, entrepreneurship promotions and interventions programmes in Saudi Arabia can further focus on adopting positive expectations among entrepreneurial intenders who have concrete goals to create a venture.

In fact, this study encourages institutions that support entrepreneurship in Saudi Arabia to consider three main approaches – cultural, motivational, and determination. The cultural approach entails focusing on cultural aspects that encourage confidence to start a business. The motivational approach involves encouraging setting venture creation as a goal. This might include promoting entrepreneurship as favourable and achievable. The determination approach implies addressing expected difficulties and adversities and developing competencies required to cope with them. Hence, the focus should not be limited to promoting entrepreneurial intention; rather this involves a process which includes goal setting, planning, and goal striving.

In light of the research findings, entrepreneurial self-efficacy plays a vital role in entrepreneurship behaviour. This finding is in accordance with previous studies that highlight several advantages of high entrepreneurial self-efficacy including the ability to perceive opportunities, deal with uncertainty, and influence outcomes (Hisrich & Brush, 1986; Boyd

& Vozikis 1994; Krueger & Brazeal, 1994; Zhao et al., 2005; Baron, 2008; Harun, 2013). These advantages might reflect several measures such as perceived opportunities, locus of control, tolerance of ambiguity, innovation and creativity.

Following the arguments that entrepreneurs encourage life success through confidence (Palich & Bagby, 1995), opportunities (Baron, 2008), innovation, and creativity (Harun, 2013), the research recommends applying the entrepreneurial mind-set through technology and social responsibility programmes to deal with emerging uncertainty and complexity. This is in addition to the recommendation of fostering an entrepreneurial mind-set in the education system.

As far as measures of perceived opportunities, locus of control, and tolerance of ambiguity are concerned, the situation of progress in technology and telecommunications, as well as fewer trade barriers, generates greater uncertainty and complexity. Consequently, it is recommended for policy makers in Saudi Arabia to support entrepreneurship in the fields of technology and telecommunication and foster an entrepreneurial mind-set to boost entrepreneurial self-efficacy and hence the ability to seize opportunities and manage high uncertainty. Thus, science, technology, and innovation national strategies can emphasise establishing and expanding technology parks and incubators. For example, BADIR for technology incubators is one of the programmes that have been implemented to support tech and non-tech nascent entrepreneurs in Saudi Arabia (Badir, 2015).

Although the national development plans in Saudi Arabia indicate the importance of technology through strategies and initiatives, the low entrepreneurial activity rate among comparable countries is questionable. Following the notion that tech entrepreneurs involve more planning, legitimacy, and resources (Liao & Welsch, 2008), this research recommends

applying the entrepreneurial mind-set model, which articulates that there is a need to support potential tech entrepreneurs from both perspectives – namely, technical backing and mind-set fostering. The entrepreneurial mind-set fostering includes nurturing entrepreneurship as a process that involves goal setting, planning, and goal striving. Thus, navigating through goal sitting and goal striving, this approach can boost entrepreneurial self-efficacy and hence the ability to identify and seize opportunities and manage uncertainty.

As far as innovation and creativity are concerned, following the science, technology, and innovation strategy in the Saudi National Development Plan (NDP), the private sector should foster the gifted and creative talents (NDP, 2010). Several corporate companies such as Saudi Telecom company, SABIC, ARAMCO, and National Commercial Bank (NCB) have commenced corporate social responsibility programmes to support potential entrepreneurs. For example, the National Commercial Bank has established the “ALAHLI Entrepreneur Program” to support young people to fulfil their aspirations by creating ventures successfully. The programme includes several initiatives such as training courses, seminars, and mentoring (NCB, 2015). This research proposes the entrepreneurial mind-set model as a process that can contribute to private-sector initiatives to support youth aspirations. Thus, it can enrich CSR programmes to ignite an entrepreneurial mind-set through goal setting and goal striving. In fact, this research emphasises the importance of looking at entrepreneurship as a process whereby potential entrepreneurs need to understand both motivational and volitional aspects to carry out their entrepreneurial intentions successfully. The entrepreneurial mind-set model offered by this study is applicable via entrepreneurs’ programmes such as training courses and seminars. This can represent the building blocks for awareness programmes about identifying what it takes to translate entrepreneurial intention into action. Consequently, enhancing entrepreneurial self-efficacy can help potential entrepreneurs to appraise the situation as a challenge, raise their expectations, and ignite their innovation and creativity.

In summary, this study can furnish entrepreneurial intenders and policy makers with practices that facilitate progressing from simple entrepreneurial intention to strong entrepreneurial potential. It supports intenders to navigate through goal setting, planning, and goal striving. Hence, it sheds light on the process of moving from intenders to potential entrepreneurs.

8.3 Limitations and Future Research

The researcher acknowledges several limitations in this study. First, the study was conducted as a “snapshot” of the current situation of entrepreneurship in Saudi Arabia. However, as translating entrepreneurial goal intention into action involves time lags, conducting a longitudinal study would have brought additional value to the entrepreneurial mind-set notion. Whilst such an undertaking was outside the scope of this thesis, future research could explore the entire process from formulating the entrepreneurial goal intention into initiating action using the entrepreneurial mind-set concept.

Second, the study sample comprises only non-entrepreneurs who have never started a business. It excluded non-entrepreneurs who have previous experience of venture creation. The aim was to prevent the influence of previous experience on identifying the deliberative mind-set and the implemental mind-set. However, future research on the entrepreneurial mind-set could examine the role of previous entrepreneurial experience of non-entrepreneurs on developing the deliberative mind-set and the implemental mind-set.

Third, the present research sample comprises private sector national employees who have never started a business. Saudi Arabia’s National Development Plans have identified increasing unemployment as a major concern in the Kingdom (NDP, 2010). As one of the major advantages of entrepreneurship is to encounter the problem of unemployment, future research in the entrepreneurial mind-set could look at the effect of deliberative and implemental mind-sets on bridging the intention-action gap of unemployed people.

Fourth, the study sample was limited to 95% males compared to only 5% females. The researcher points out this limitation in the analysis chapter (section 6.1). The study highlights three main reasons for such sizeable difference in sample characteristics. First, the private sector in Saudi Arabia is dominated by males with 73% compared to 27% of females. Second, the researcher has limited accessibility to female divisions in companies in Saudi Arabia. However, the entrepreneurship literature highlighted that some countries and societies such as those in the Middle East (GEM, 2010) associate masculine characteristics with entrepreneurship. This can reduce social and financial support and hence results in low entrepreneurial intention and business ownership among women (Gupta et al., 2009).

Nevertheless, this inevitably introduces bias to the research and therefore the findings should only be generalised for the male population. Further research should be conducted to explore their applicability to the female population.

As far as the sociological perspective is concerned, this research suggests several sociological subjects for further study. First, it is suggested that the influence of the entrepreneurial mind-set notion on enhancing efficiency of CSR programmes is investigated. Second, the entrepreneurial mind-set of tech entrepreneurship that enables societies to cope with global technology uncertainty and opportunities should be explored. Third, communities' concerns of unemployment should be addressed by examining what it takes to foster an entrepreneurial mind-set in unemployed people. Finally, in some cultures where women need to be empowered to the benefit of societies and where entrepreneurship is dominated by males, further research about promoting an entrepreneurial mind-set for females is suggested.

Finally, this research conceptualises the interplay between entrepreneurial mind-set and cultural values to bridge the intention-action gap in Saudi Arabia. However, broader insight can be added to the study by comparing Saudi Arabia with other countries. This could shed

light on the possibility of variations or similarities of entrepreneurial mind-set across different contexts.

8.4 Conclusion

Although Saudi Arabia has high entrepreneurial goal intention, the associated entrepreneurial activity is low. This indicates an entrepreneurial intention-action gap concern which discourages the advantages of venture creation. This research developed a unique data-set that captured key cognitive and cultural factors influencing the entrepreneurial intention-action gap of 405 Saudi employees.

To address the cognition component, the study investigates the underlying processes of formulating and maintaining entrepreneurial intention. As entrepreneurship is a goal-directed behaviour, it entails three phases; these are pre-decision, pre-action, and action.

At the pre-decision phase, people often have many wishes and needs. Hence, they need a self-regulation mechanism to regulate these desires and achieve their aspirations. Formulating strong goal intention is the suggested self-regulation determinant at this stage. This can be achieved through desirability, feasibility, and entrepreneurial self-efficacy. Otherwise, people may fail to convert their entrepreneurial intention into action because they do not set a firm goal. This might occur due to lack of desirability, feasibility, and entrepreneurial self-efficacy. Hence, the present research suggests that these determinants are encouraged in interventions that promote entrepreneurship in Saudi Arabia.

The study shows, however, that cultural values in Saudi Arabia are currently unsupportive of entrepreneurship. The reason is that these negatively influence entrepreneurial self-efficacy. Hence, people may fail to formulate concrete goal intention and consequently cannot progress from formulating to maintaining their entrepreneurial goal intention. Therefore, the present research recommends that entrepreneurial confidence is fostered as a first stage in

promoting entrepreneurship in Saudi Arabia. However, individuals can be distracted by many wishes and needs at this stage, so intenders need to develop commitment for performing entrepreneurial activity and to achieve this they need to perceive entrepreneurship as both desirable and achievable. Consequently, having developed confidence in venture creation and commitment, people can then set strong goal intention following which they are ready to progress to attain their entrepreneurial goal intention.

At the pre-action phase, intenders further encounter difficulties of initiating action. Hence, they need self-regulation to regulate these problems of enactment. The study found that implementation plan and optimism are self-regulation determinants that increase self-regulation of entrepreneurial intenders at this stage. Hence, the present research suggests that these determinants are fostered in programmes promoting entrepreneurship in Saudi Arabia.

Consequently, the present research encourages entrepreneurial intention research to consider entrepreneurship as a goal-directed behaviour rather than a single act. This approach can facilitate investigating the underlying processes and provide a better understanding of promoters as well as inhibitors of entrepreneurial activity. Further, this study emphasises the importance of considering the effect of cultural values as well as cognitive factors to explain entrepreneurial behaviour.

The present study encourages entrepreneurial behaviour research to take this forward by introducing the notion of self-regulation; that is, studying the relationship between self-regulation and entrepreneurial action. Further, entrepreneurial behaviour research can shed light on comparing self-regulation among entrepreneurs and non-entrepreneurs. This can enrich the perception of self-regulation in the entrepreneurship domain. Finally, replication studies can add the sense of cultural differences to self-regulation concept. Thus,

investigating the self-regulation predictors in various cultures may provide better understanding of the interaction between cultural values and self-regulation.

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Appendices

Appendix A: Ninth Development Plan Policies and Strategies (Saudi Arabia)

Strategy	Ninth Development Plan Policies		
National Economy	Linking budget programmes and allocations to the objectives and priorities of the Development Plan	Continue to increase the capital of specialized lending institutions in line with the growing demand for loans by citizens and the private sector	Promoting an investment climate conducive to attracting both Saudi and foreign private investors
	Increase government investment expenditure to ensure satisfying the growing needs for expanding and developing the economic, social, and environmental infrastructure		
Knowledge-Based Economy	Promoting giftedness, innovation and leadership	Motivating and supporting the private sector to expand its research, development and innovation activities	Encouraging establishment of research complexes, where small and medium enterprises could be incubated
Competitiveness	Improving infrastructure	Improving business environment which might have a direct effect on ease of doing business	Draw entrepreneurs' attention towards potential opportunities
Private Sector	Improving private sector capabilities	Enhancing business environment	Supporting small and medium enterprises (SMEs)
Investment	Continuing to maintain a regulatory environment favourable to investment	Encouraging investment in all regions	

Manpower and the Labour Market	Supporting the Human Resources Development Fund financially, administratively and technically	Studying the possibility of establishing an administrative entity (body or institution), or developing one of the existing entities, to assume responsibility for SMEs	Supporting efforts to stimulate regionally balanced economic activity and balanced provision of employment opportunities for Saudi manpower, through softening lending for commercial and industrial activities outside big cities
	Implementing tax incentives to investment in less developed regions		
Population and Standard of Living	Achieving greater integration between the government and private initiatives in employment	Supporting funds and financial institutions and expanding their programmes	
Domestic Trade	Promoting the culture of self-employment in community	Supporting the "Kafalah" programme for SMEs financing	Create SMEs database
	Supporting the efforts of the Saudi Industrial Development Fund (SIDF) in providing technical advice	Intensifying efforts to increase participation of Saudi manpower in this sector	Reviewing, developing and facilitating ways, procedures and methods of doing business, in response to the needs of the national economy
Youth and Development	Making schools more connected to society	Spreading the culture of productive work and reducing excessive reliance on the state for securing employment	
Strategy	Ninth Development Plan Policies		
Science, Technology, and Innovation	Providing technical, scientific and technological assistance to SMEs to help them innovate	Establishing and expanding technology parks and incubators	Fostering the gifted and the creative and encouraging the private sector and investors to foster their talents

Industry	Supporting SMEs and leading industries	Continuing to improve the investment climate and the business environment	Adopting small and medium industries as essential components within industrial complexes and technology zones
	Implementing programmes to impress upon young people the importance of enrolment in scientific and engineering disciplines	Integrating initiatives of both the public and the private sectors for expanding establishment of intermediary institutions that link education and R&D with investment opportunities in production and service sectors	
General Education	Improve schools environment and adapting to new knowledge	Enabling education to meet requirements of development	Expanding the capacity of educational institutions in science and technology
	Expanding the use of information and communication technology (ICT)	Developing appropriate secondary education to meet the requirements of comprehensive development	Developing educational programmes to keep pace with knowledge and technological advances
	Developing educational programmes for the gifted in science and creativity	Enabling students to explore and develop their aptitudes and talents	Reforming education curricula to complement with knowledge society needs including modern scientific and technical skills, and entrepreneurship
	Ninth Development Plan Policies		
	Continuing to evaluate and update general education systems to become more responsive to development plans and the needs of society		

Higher Education	Supporting efforts to achieve harmonization between outputs of education and training systems and labour market requirements	Rationalizing admissions to disciplines that are not in demand in the labour market and development programmes	Relating expansion of higher education to programmes and disciplines that are in high demand in the labour market
	Incorporating the knowledge, skills and attitudes required by the labour market into the curricula and courses of higher education	Diversifying and developing specialisations in line with labour market requirements	Intensifying student guidance at all stages of education
	Developing graduate studies and linking their work and outputs to the knowledge economy		

Appendix B: Companies Listed in the Saudi Stock Market

NO.	COMPANY NAME	INDUSTRY
1	Abdullah A. M. Al-Khodari Sons Co.	Building & Construction
2	Abdullah Al Othaim Markets Co.	Retail
3	Abdulmohsen Alhokair Group for Tourism and Development	Hotel & Tourism
4	ACE Arabia Cooperative Insurance Co.	Insurance
5	Advanced Petrochemical Co.	Petrochemical
6	Al Abdullatif Industrial Investment Co.	Industrial Investment
7	Al Alamiya for Cooperative Insurance Co.	Insurance
8	Al Hammadi Company for Development and Investment	Retail
9	Al Hassan Ghazi Ibrahim Shaker Co.	Industrial Investment
10	Al Jouf Cement Co.	Cement
11	Al Rajhi Bank	Bank
12	Al Sagr Cooperative Insurance Co.	Insurance
13	Al Sorayai Trading and Industrial Group	Industrial Investment
14	Al-Ahlia Insurance Co.	Insurance
15	Al-Ahsa Development Co.	Multi-Investment
16	Al-Babtain Power and Telecommunication Co.	Building & Construction
17	Al-Baha Investment and Development Co.	Multi-Investment
18	Al-Jouf Agricultural Development Co.	Agriculture & Food
19	Al-Rajhi Company for Cooperative Insurance	Insurance
20	Alahli Takaful Co.	Insurance
21	Aldrees Petroleum and Transport Services Co.	Retail
22	Alinma Bank	Bank
23	Alinma Tokio Marine Co.	Insurance
24	Aljazira Takaful Taawuni Co.	Insurance
25	Alkhaleej Training and Education Co.	Retail
26	Allianz Saudi Fransi Cooperative Insurance Co.	Insurance
27	Allied Cooperative Insurance Group	Insurance
28	Almarai Co.	Agriculture & Food
29	Altayyar Travel Group	Hotel & Tourism
30	Alujain Corp.	Petrochemical
31	Amana Cooperative Insurance Co.	Insurance
32	Anaam International Holding Group	Agriculture & Food
33	Arab National Bank	Bank
34	Arabia Insurance Cooperative Co.	Insurance
35	Arabian Cement Co.	Cement
36	Arabian Pipes Co.	Building & Construction
37	Arabian Shield Cooperative Insurance Co.	Insurance

38	Arriyadh Development Co.	Real Estate Development
39	Aseer Trading, Tourism and Manufacturing Co.	Multi-Investment
40	Ash-Sharqiyah Development Co.	Agriculture & Food
41	Astra Industrial Group	Industrial Investment
42	AXA Cooperative Insurance Co.	Insurance
43	Bank Albilad	Bank
44	Bank Aljazira	Bank
45	Banque Saudi Fransi	Bank
46	Basic Chemical Industries Co.	Industrial Investment
47	Bawan Co.	Building & Construction
48	Bishah Agricultural Development Co.	Agriculture & Food
49	Bupa Arabia for Cooperative Insurance Co.	Insurance
50	Buruj Cooperative Insurance Co.	Insurance
51	City Cement Co.	Cement
52	Dallah Healthcare Holding Co.	Retail
53	Dar Alarkan Real Estate Development Co.	Real Estate Development
54	Dur Hospitality Co.	Hotel & Tourism
55	Eastern Province Cement Co.	Cement
56	Electrical Industries Co.	Building & Construction
57	Emaar The Economic City	Real Estate Development
58	Etihad Atheeb Telecommunication Co.	Telecom
59	Etihad Etisalat Co.	Telecom
60	Fawaz Abdulaziz Alhokair Co.	Retail
61	Filing and Packing Materials Manufacturing Co.	Industrial Investment
62	Fitaihi Holding Group	Retail
63	Gulf General Cooperative Insurance Co.	Insurance
64	Gulf Union Cooperative Insurance Co.	Insurance
65	Hail Cement Co.	Cement
66	Halwani Bros. Co.	Agriculture & Food
67	Herfy Food Services Co.	Agriculture & Food
68	Jabal Omar Development Co.	Real Estate Development
69	Jarir Marketing Co.	Retail
70	Jazan Development Co.	Agriculture & Food
71	Kingdom Holding Co.	Multi-Investment
72	Knowledge Economic City	Real Estate Development
73	Makkah Construction and Development Co.	Real Estate Development

74	Malath Cooperative Insurance and Reinsurance Co.	Insurance
75	Methanol Chemicals Co.	Petrochemical
76	MetLife AIG ANB Cooperative Insurance Co.	Insurance
77	Middle East Paper Co.	Industrial Investment
78	Middle East Specialized Cables Co.	Building & Construction
79	Mobile Telecommunication Company Saudi Arabia	Telecom
80	Mohammad Al Mojil Group	Building & Construction
81	Mouwasat Medical Services Co.	Retail
82	Najran Cement Co.	Cement
83	Nama Chemicals Co.	Petrochemical
84	National Agricultural Development Co.	Agriculture & Food
85	National Agricultural Marketing Co.	Retail
86	National Commercial Bank	Bank
87	National Gas and Industrialization Co.	Energy&Utilities
88	National Gypsum Co.	Building & Construction
89	National Industrialization Co.	Petrochemical
90	National Medical Care Co.	Retail
91	National Metal Manufacturing and Casting Co.	Industrial Investment
92	National Petrochemical Co.	Petrochemical
93	National Shipping Company of Saudi Arabia	Transport
94	Northern Region Cement Co.	Cement
95	Qassim Agricultural Co.	Agriculture & Food
96	Qassim Cement Co.	Cement
97	Rabigh Refining and Petrochemical Co.	Petrochemical
98	Red Sea Housing Services Co.	Building & Construction
99	Riyad Bank	Bank
100	SABB Takaful Co.	Insurance
101	Sahara Petrochemical Co.	Petrochemical
102	Salama Cooperative Insurance Co.	Insurance
103	Samba Financial Group	Bank
104	Sanad Cooperative Insurance Co.	Insurance
105	Saudi Advanced Industries Co.	Multi-Investment
106	Saudi Airlines Catering Co.	Agriculture & Food
107	Saudi Arabia Fertilizers Co.	Petrochemical
108	Saudi Arabia Refineries Co.	Multi-Investment
109	Saudi Arabian Amiantit Co.	Building & Construction
110	Saudi Arabian Cooperative Insurance Co.	Insurance
111	Saudi Arabian Mining Co.	Industrial Investment
112	Saudi Automotive Services Co.	Retail

113	Saudi Basic Industries Corp.	Petrochemical
114	Saudi British Bank	Bank
115	Saudi Cable Co.	Building & Construction
116	Saudi Cement Co.	Cement
117	Saudi Ceramic Co.	Building & Construction
118	Saudi Chemical Co.	Industrial Investment
119	Saudi Company for Hardware	Retail
120	Saudi Electricity Co.	Energy&Utilities
121	Saudi Enaya Cooperative Insurance Co.	Insurance
122	Saudi Fisheries Co.	Agriculture & Food
123	Saudi Ground Services Co.	Transport
124	Saudi Hollandi Bank	Bank
125	Saudi Indian Company for Cooperative Insurance	Insurance
126	Saudi Industrial Development Co.	Building & Construction
127	Saudi Industrial Export Co.	Industrial Investment
128	Saudi Industrial Investment Group	Petrochemical
130	Saudi Industrial Services Co.	Multi-Investment
131	Saudi International Petrochemical Co.	Petrochemical
132	Saudi Investment Bank	Bank
133	Saudi Kayan Petrochemical Co.	Petrochemical
134	Saudi Marketing Co.	Retail
135	Saudi Paper Manufacturing Co.	Industrial Investment
136	Saudi Pharmaceutical Industries and Medical Appliances Corp.	Industrial Investment
137	Saudi Printing and Packaging Co.	Media and Publication
138	Saudi Public Transport Co.	Transport
139	Saudi Re for Cooperative Reinsurance Co.	Insurance
140	Saudi Real Estate Co.	Real Estate Development
141	Saudi Research and Marketing Group	Media and Publication
142	Saudi Steel Pipe Co.	Building & Construction
143	Saudi Telecom Co.	Telecom
144	Saudi Transport and Investment Co.	Transport
145	Saudi United Cooperative Insurance Co.	Insurance
146	Saudi Vittrified Clay Pipes Co.	Building & Construction
147	Saudia Dairy and Foodstuff Co.	Agriculture & Food
148	Savola Group	Agriculture & Food
149	Solidarity Saudi Takaful Co.	Insurance
150	Southern Province Cement Co.	Cement

151	Tabuk Agricultural Development Co.	Agriculture & Food
152	Tabuk Cement Co.	Cement
153	Taiba Holding Co.	Real Estate Development
154	Takween Advanced Industries Co.	Industrial Investment
155	The Company for Cooperative Insurance	Insurance
156	The Mediterranean and Gulf Insurance and Reinsurance Co.	Insurance
157	The National Company for Glass Industries	Industrial Investment
158	Tihama Advertising and Public Relations Co.	Media and Publication
159	Tourism Enterprise Co.	Hotel & Tourism
160	Trade Union Cooperative Insurance Co.	Insurance
161	Umm Al-Qura Cement Co.	Cement
162	United Cooperative Assurance Co.	Insurance
163	United Electronics Co.	Retail
164	United International Transportation Co.	Transport
165	United Wire Factories Co.	Building & Construction
166	Wafrah for Industry and Development Co.	Agriculture & Food
167	Wataniya Insurance Co.	Insurance
168	Weqaya Takaful Insurance and Reinsurance Co.	Insurance
169	Yamama Cement Co.	Cement
170	Yanbu Cement Co.	Cement
171	Yanbu National Petrochemical Co.	Petrochemical
172	Zamil Industrial Investment Co.	Building & Construction

Appendix C: Questionnaire

Thank you for taking the time to complete this survey. This survey aims to gain a better understanding of how strong entrepreneurial intentions are formed and translated into action. The questionnaire is anonymous, confidential, and may only take 15 minutes of your time. There is no right or wrong answer and your first answer is likely to be the best.

☐ **Do you own a business?**

- ☐ Yes
- ☐ No

SECTION 1. DELIBERATIVE MIND-SET

DESIRABILITY: To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> I would rather earn a higher salary employed by someone else than own my own business.	○	○	○	○	○
<input type="checkbox"/> I would rather pursue another promising career than own my own business.	○	○	○	○	○
<input type="checkbox"/> I am willing to make significant personal sacrifices in order to stay in business.	○	○	○	○	○
<input type="checkbox"/> I would work somewhere else only long enough to make another attempt to establish my business.	○	○	○	○	○
<input type="checkbox"/> I am willing to work more with the same salary in my own business, than as employed in an organization.	○	○	○	○	○

FEASIBILITY: To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> It will be feasible to start my own business.	○	○	○	○	○
<input type="checkbox"/> It will be hard to start my own business.	○	○	○	○	○
<input type="checkbox"/> If I start my own business, I am certain that it will be a success.	○	○	○	○	○
<input type="checkbox"/> If I start my own business, I will be overworked.	○	○	○	○	○
<input type="checkbox"/> I know enough to start a business.	○	○	○	○	○
<input type="checkbox"/> I am sure of myself.	○	○	○	○	○

ENTREPRENEURIAL SELF-EFFICACY: To what extent do you agree or disagree with the following statements: *I have confidence in my ability to*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> Conceive a unique idea for a business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Identify market opportunities for a new business Planning stage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Plan a new business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Write a formal business plan Marshalling stage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Raise money to start a business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Convince others to invest in your business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Convince a bank to lend you money to start a business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Convince others to work for you in your new business Implementing stage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Manage a small business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Grow a successful business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ENTREPRENEURIAL GOAL INTENTIONT:

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> I am ready to do anything to be an entrepreneur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> My professional goal is to become an entrepreneur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I will make every effort to start and run my own firm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I am determined to create a firm in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I have very seriously thought of starting a firm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I have the firm intention to start a firm some day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 2. IMPLEMENTAL MIND-SET**IMPLEMENTATION INTENTION:**

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> I already plan out in detail HOW I intend to act upon the matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I already plan out in detail WHEN I intend to act upon the matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I already plan out in detail WHERE I intend to act upon the matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

COPING WITH FAILURE:

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> After something unpleasant has happened, I often brood over it for a long time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> When something bad happens, it usually takes me a very long time until I can concentrate on something else again	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> When I am in a bad mood, I often have great difficulty cheering myself up again	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Once I begin to worry, I have difficulty getting rid of those thoughts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ACTION ORIENTATION:

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> I frequently postpone carrying out anything unpleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I often plan to do things, but then I don't get around to doing them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I postpone many things which I have to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I often begin to work on a task but then never finish it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

OPTIMISM:

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> In uncertain times, I usually expect the best.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> It's easy for me to relax.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> If something can go wrong for me, it will.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I'm always optimistic about my future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I enjoy my friends a lot.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> It's important for me to keep busy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I hardly ever expect things to go my way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I don't get upset too easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I rarely count on good things happening to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Overall, I expect more good things to happen to me than bad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 3. SELF-REGULATION

SELF-REGULATION (DETERMINATION, MOTIVATION, RELAXATION):

To what extent do you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> I feel that most of the things I do daily, I do of my own free will	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Most of the time I feel in tune with myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> In most situations, I feel free to do what I think is right	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I am usually aware that I want to do what I am doing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> When my perseverance subsides, I know exactly how to motivate myself again	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> When I work on a difficult task, I am able to concentrate on the positive aspects of it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I can usually motivate myself quite well when my perseverance subsides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> When a task gets boring, I usually know how to make it interesting again	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I know exactly how to calm my nervousness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I can rapidly relax even when I am in a state of great inner tension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I can easily reduce excessive arousal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> I can reduce my tension level if it becomes disturbing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 4. CULTURAL VALUES

VALUES:

To what extent do you agree or disagree with the following choices as your country's top goals:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<input type="checkbox"/> Maintaining order in the nation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Fighting rising prices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Maintain a high rate of economic growth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Make sure that this country has strong defence forces.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Maintain a stable economy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Fight against crime.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Giving the people more say in important government decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Protecting freedom of speech.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Give people more say in how things are decided at work and in their community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Try to make our cities and countryside more beautiful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Move toward a friendlier, less impersonal society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Move toward a society where ideas count more than money.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION 5. DEMOGRAPHICS

Gender?

- ☐ Male
- ☐ Female

Age?

- ☐ Less than 20
- ☐ 20-25
- ☐ 26-30
- ☐ 31-40
- ☐ 41-50
- ☐ 51-60

Highest education level?

- ☐ Postgraduate
- ☐ Graduate
- ☐ Secondary
- ☐ Other

Appendix D: Ethical Approval



Khalid Al Ammari
PGR Student
Faculty of Business

Ref: FoB/UPC/FREC/FREC1415.56/clc
Date: 15 July, 2015

Dear Khalid

Ethical Approval Application No: FREC1415.56
Title: Future Entrepreneurs: Enhancing Entrepreneurial Intention

The Faculty Research Ethics Committee has considered the revised ethical approval form and is now fully satisfied that the project complies with Plymouth University's ethical standards for research involving human participants.

Approval is for the duration of the project. However, please resubmit your application to the committee if the information provided in the form alters or is likely to alter significantly.

We would like to wish you good luck with your research project.

Yours sincerely

(Sent as email attachment)

Dr James Benhin
Chair
Faculty Research Ethics Committee
Faculty of Business

Faculty of Business
University of Plymouth
Drake Circus
Plymouth
Devon PL4 8AA, United Kingdom

T +44 (0) 1752 385540
F +44 (0) 1752 385713
W www.plymouth.ac.uk

Appendix E: Support Letter

**DISCOVER
WITH
PLYMOUTH
UNIVERSITY**

To whom it may concern:

RE: Research into the promotion of entrepreneurial behaviour within Saudi Arabia

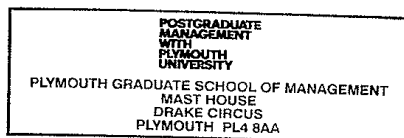
This is to confirm that our research student Mr. Khalid Alammari is conducting important research to enhance entrepreneurial behaviour in Saudi Arabia. As he is currently at the data collection stage, your contribution would be highly valued. He has agreed to the University ethical guidelines and we will ensure that all data received will be kept securely, confidentially and not used for any purposes other than those stated.

While your assistance would be extremely useful and make a significant contribution to developing business performance through entrepreneurship in Saudi Arabia, there is no obligation to participate. You may also initially agree and then later withdraw from participation at any time prior to data analysis in March 2016.

If you would like to discuss the project in more detail, then please contact the research director Dr Robert Newbery at: robert.newbery@plymouth.ac.uk

Thank you for cooperation.

Yours faithfully,



Dr Robert Newbery, Plymouth University
Dr Emily Beaumont, Plymouth University
Dr Mohamed Haddoud, Plymouth University
Professor Ahmed Alshumaimri, Dar Al Uloom University

Appendix F: Table for Common Methods Bias Test

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.623	16.783	16.783	17.623	16.783	16.783
2	6.952	6.621	23.404			
3	6.130	5.838	29.242			
4	5.269	5.018	34.260			
5	3.839	3.656	37.916			
6	3.693	3.517	41.433			
7	2.562	2.440	43.873			
8	2.421	2.306	46.179			
9	2.171	2.067	48.246			
10	2.019	1.923	50.170			
11	1.889	1.799	51.969			
12	1.804	1.718	53.687			
13	1.773	1.689	55.375			
14	1.636	1.558	56.933			
15	1.593	1.517	58.450			
16	1.523	1.450	59.900			
17	1.506	1.434	61.334			
18	1.430	1.362	62.697			
19	1.365	1.300	63.996			
20	1.317	1.255	65.251			
21	1.284	1.223	66.474			
22	1.239	1.180	67.654			
23	1.189	1.133	68.787			
24	1.161	1.106	69.892			
25	1.083	1.032	70.924			
26	1.036	.987	71.911			
27	1.001	.954	72.865			
28	.934	.889	73.754			
29	.929	.885	74.639			
30	.878	.836	75.475			
31	.865	.824	76.299			
32	.859	.818	77.117			
33	.850	.810	77.927			
34	.796	.758	78.685			
35	.789	.751	79.436			
36	.770	.734	80.169			
37	.714	.680	80.849			
38	.676	.644	81.493			
39	.661	.630	82.123			

40	.653	.622	82.745
41	.622	.592	83.337
42	.612	.583	83.920
43	.602	.573	84.493
44	.589	.561	85.053
45	.570	.543	85.596
46	.566	.539	86.135
47	.543	.517	86.653
48	.524	.499	87.152
49	.509	.485	87.637
50	.498	.474	88.111
51	.477	.455	88.566
52	.474	.451	89.017
53	.465	.443	89.461
54	.447	.426	89.886
55	.431	.411	90.297
56	.419	.399	90.696
57	.402	.383	91.079
58	.399	.380	91.459
59	.379	.361	91.820
60	.369	.352	92.171
61	.364	.347	92.518
62	.344	.328	92.846
63	.337	.321	93.167
64	.322	.306	93.473
65	.314	.299	93.772
66	.308	.293	94.065
67	.301	.287	94.352
68	.292	.278	94.630
69	.285	.272	94.902
70	.275	.262	95.164
71	.263	.251	95.414
72	.255	.242	95.657
73	.244	.232	95.889
74	.242	.230	96.120
75	.237	.225	96.345
76	.230	.219	96.565
77	.224	.214	96.778
78	.217	.207	96.985
79	.202	.192	97.177
80	.193	.184	97.361
81	.189	.180	97.541
82	.179	.171	97.712

83	.174	.166	97.877		
84	.163	.155	98.033		
85	.154	.146	98.179		
86	.150	.143	98.322		
87	.140	.133	98.455		
88	.132	.126	98.581		
89	.127	.121	98.702		
90	.126	.120	98.822		
91	.123	.117	98.940		
92	.116	.111	99.051		
93	.111	.106	99.157		
94	.109	.104	99.261		
95	.103	.098	99.359		
96	.086	.082	99.441		
97	.081	.077	99.518		
98	.079	.075	99.593		
99	.075	.071	99.664		
100	.070	.067	99.731		
101	.068	.064	99.795		
102	.064	.061	99.856		
103	.058	.056	99.911		
104	.049	.047	99.958		
105	.044	.042	100.000		

Extraction Method: Principal Component Analysis.

Appendix G: Indicator Loadings and Cross-Loadings

	PMAT_V AL	DES	FEAS	ESE	GO_INT	IMP_INT	OPTIM	ACT_OR	COP_F	REG	GENDER	AGE	EDUC
PMAT_V AL1	(0.750)	0.027	-0.058	0.033	0.034	-0.005	0.111	0.058	0.114	-0.026	0.022	0.072	0.107
PMAT_V AL2	(0.781)	-0.029	-0.063	-0.080	0.144	-0.079	0.110	0.034	0.013	-0.041	0.048	0.076	0.110
PMAT_V AL3	(0.847)	-0.012	0.046	0.055	0.010	-0.044	0.033	-0.032	-0.018	-0.009	-0.096	0.022	0.004
PMAT_V AL4	(0.724)	0.004	0.032	0.021	-0.129	0.095	-0.180	-0.106	-0.051	0.076	0.025	-0.101	-0.146
PMAT_V AL5	(0.687)	0.014	0.044	-0.036	-0.077	0.049	-0.097	0.049	-0.064	0.007	0.014	-0.086	-0.093
DES1	0.049	(0.815)	-0.062	0.036	-0.109	-0.027	0.031	0.137	-0.051	-0.039	-0.017	0.088	0.100
DES2	0.093	(0.829)	0.039	-0.068	-0.141	-0.077	0.030	0.014	-0.071	0.017	-0.081	-0.069	0.054
DES5	-0.106	(0.719)	-0.032	-0.029	0.131	0.117	-0.053	-0.079	0.076	0.071	0.039	0.029	-0.044
DES4	-0.066	(0.609)	0.067	0.080	0.182	0.002	-0.019	-0.110	0.076	-0.054	0.086	-0.058	-0.156
FEAS5	-0.036	-0.010	(0.777)	0.084	-0.252	0.188	0.080	0.038	-0.004	-0.054	-0.102	0.068	0.152
FEAS1	-0.041	0.187	(0.697)	0.092	0.212	-0.102	-0.131	-0.061	0.068	-0.013	0.134	-0.085	0.009
FEAS3	0.076	-0.163	(0.748)	-0.173	0.064	-0.101	0.039	0.018	-0.059	0.069	-0.019	0.008	-0.166
ESE1	0.067	0.091	-0.018	(0.680)	-0.076	0.151	-0.017	-0.152	0.034	0.018	-0.004	-0.077	-0.026
ESE2	0.022	0.046	0.060	(0.803)	-0.104	0.075	-0.026	-0.049	-0.011	-0.043	0.050	-0.047	-0.082
ESE3	-0.013	0.033	0.159	(0.790)	-0.010	-0.014	0.032	-0.057	0.081	-0.001	0.022	-0.054	0.011
ESE4	0.038	0.046	0.074	(0.750)	-0.088	0.011	0.144	0.066	-0.005	-0.061	-0.029	0.006	0.003
ESE5	0.028	-0.071	-0.195	(0.684)	-0.007	0.127	-0.068	0.087	-0.079	0.068	-0.085	-0.067	0.029
ESE6	0.022	-0.173	-0.075	(0.702)	0.004	-0.024	-0.090	0.031	-0.027	0.126	-0.007	0.102	0.007
ESE8	-0.063	-0.165	-0.047	(0.627)	-0.047	-0.070	-0.077	-0.035	-0.080	0.142	-0.054	0.113	-0.053
ESE9	-0.048	0.084	-0.063	(0.690)	0.098	-0.176	0.060	0.057	0.023	-0.093	0.075	0.055	0.070
ESE10	-0.060	0.078	0.058	(0.727)	0.238	-0.088	0.021	0.055	0.045	-0.124	0.017	-0.010	0.045
GO_INT1	0.013	-0.124	-0.070	-0.098	(0.752)	-0.022	-0.029	-0.138	-0.020	-0.052	0.055	-0.057	-0.019
GO_INT2	-0.030	-0.080	0.014	-0.107	(0.836)	0.035	-0.134	-0.039	0.036	0.054	-0.022	-0.047	0.012

GO_INT3	-0.041	0.035	-0.051	0.067	(0.869)	0.021	-0.018	0.047	0.064	-0.012	-0.079	0.011	0.039
GO_INT4	0.022	0.047	0.008	0.045	(0.900)	0.002	0.109	0.061	-0.017	-0.040	0.047	0.015	0.005
GO_INT5	0.029	0.066	0.075	0.000	(0.870)	0.025	0.031	0.002	0.017	-0.039	-0.010	0.000	-0.035
GO_INT6	0.008	0.037	0.015	0.075	(0.852)	-0.065	0.029	0.046	-0.084	0.088	0.014	0.069	-0.005
IMP_INT 1	0.010	-0.032	0.045	-0.048	0.067	(0.916)	-0.010	0.037	-0.041	0.010	0.044	-0.023	-0.027
IMP_INT 2	-0.021	0.003	-0.065	-0.006	-0.036	(0.930)	-0.004	-0.026	0.013	0.009	-0.005	0.013	0.015
IMP_INT 3	0.011	0.028	0.020	0.052	-0.030	(0.939)	0.013	-0.011	0.027	-0.018	-0.038	0.009	0.011
OPTIM1	0.096	-0.067	0.149	-0.172	0.039	-0.040	(0.614)	-0.144	0.057	0.150	-0.102	-0.066	-0.101
OPTIM4	-0.048	0.021	0.007	-0.034	0.023	0.051	(0.803)	-0.001	0.052	0.046	0.053	-0.009	0.007
OPTIM10	0.050	-0.036	0.075	0.039	-0.010	-0.060	(0.749)	0.046	-0.035	-0.117	0.003	0.015	0.103
OPTIM5	-0.084	0.075	-0.222	0.151	-0.051	0.042	(0.689)	0.081	-0.074	-0.060	0.026	0.052	-0.031
ACT_OR 1	0.036	-0.044	0.178	-0.057	0.061	0.017	0.063	(0.662)	0.061	-0.134	-0.026	0.024	0.024
ACT_OR 2	-0.013	-0.077	0.052	-0.034	-0.081	0.059	-0.096	(0.810)	-0.007	0.081	-0.064	-0.032	-0.017
ACT_OR 3	-0.003	0.108	-0.098	-0.010	-0.035	0.022	0.062	(0.844)	-0.115	0.069	0.064	-0.007	0.009
ACT_OR 4	-0.015	0.000	-0.101	0.097	0.072	-0.102	-0.021	(0.765)	0.081	-0.047	0.020	0.020	-0.012
COP_1	0.073	-0.039	-0.120	0.095	0.004	0.029	0.000	0.008	(0.779)	-0.103	-0.033	0.028	-0.021
COP_2	0.020	0.046	-0.010	-0.052	-0.009	0.047	-0.032	0.006	(0.877)	0.000	-0.020	0.002	0.014
COP_3	-0.038	-0.072	0.019	-0.010	0.087	-0.048	0.035	0.020	(0.854)	-0.006	0.083	-0.036	0.012
COP_4	-0.048	0.059	0.099	-0.023	-0.080	-0.027	-0.002	-0.032	(0.869)	0.099	-0.032	0.008	-0.006
REG5	-0.001	-0.113	-0.080	0.027	0.200	0.050	0.133	0.101	-0.032	(0.731)	0.021	0.017	-0.017
REG6	0.021	-0.037	0.020	0.083	-0.015	-0.002	0.203	0.145	-0.121	(0.637)	-0.128	0.102	0.063
REG7	0.048	-0.005	-0.083	0.011	0.078	0.080	0.079	0.177	-0.139	(0.776)	0.026	0.062	0.055
REG8	0.027	-0.083	0.105	0.022	0.130	-0.048	-0.046	0.004	-0.039	(0.726)	-0.161	0.101	-0.037
REG9	0.063	0.009	0.032	-0.090	0.003	-0.042	0.010	0.050	0.075	(0.740)	0.118	-0.010	0.014
REG10	-0.066	0.174	0.032	-0.030	-0.260	0.064	-0.186	-0.140	0.093	(0.765)	0.046	-0.019	-0.033
REG11	0.013	0.010	0.049	-0.008	-0.006	-0.078	-0.142	-0.112	0.039	(0.778)	0.019	-0.075	0.002
REG12	-0.080	0.035	0.077	-0.003	-0.153	-0.065	-0.134	-0.192	0.101	(0.739)	-0.007	-0.087	-0.034

AGE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	(1.000)	0.000	0.000
EDUC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	(1.000)	0.000
GENDER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	(1.000)